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**PRACTICAL
HOME
VETERINARIAN**

DAVID ROBERTS, D. V. S.



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**DR. DAVID ROBERTS PRACTICAL
HOME VETERINARIAN**

Price \$1.00

**Published by DR. DAVID ROBERTS VETERINARY CO.
Waukesha, Wisconsin, U. S. A.**

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By DAVID ROBERTS D. V. S.

Dr. David Roberts Practical Home Veterinarian

A BOOK CONTAINING

much valuable information on the care and treatment of Cattle, Horses, Swine, Sheep and Poultry, and a review in Alphabetical order of the diseases to which they are subject, together with the causes and symptoms, and the most efficient medicines for each.

ALSO A CATALOGUE

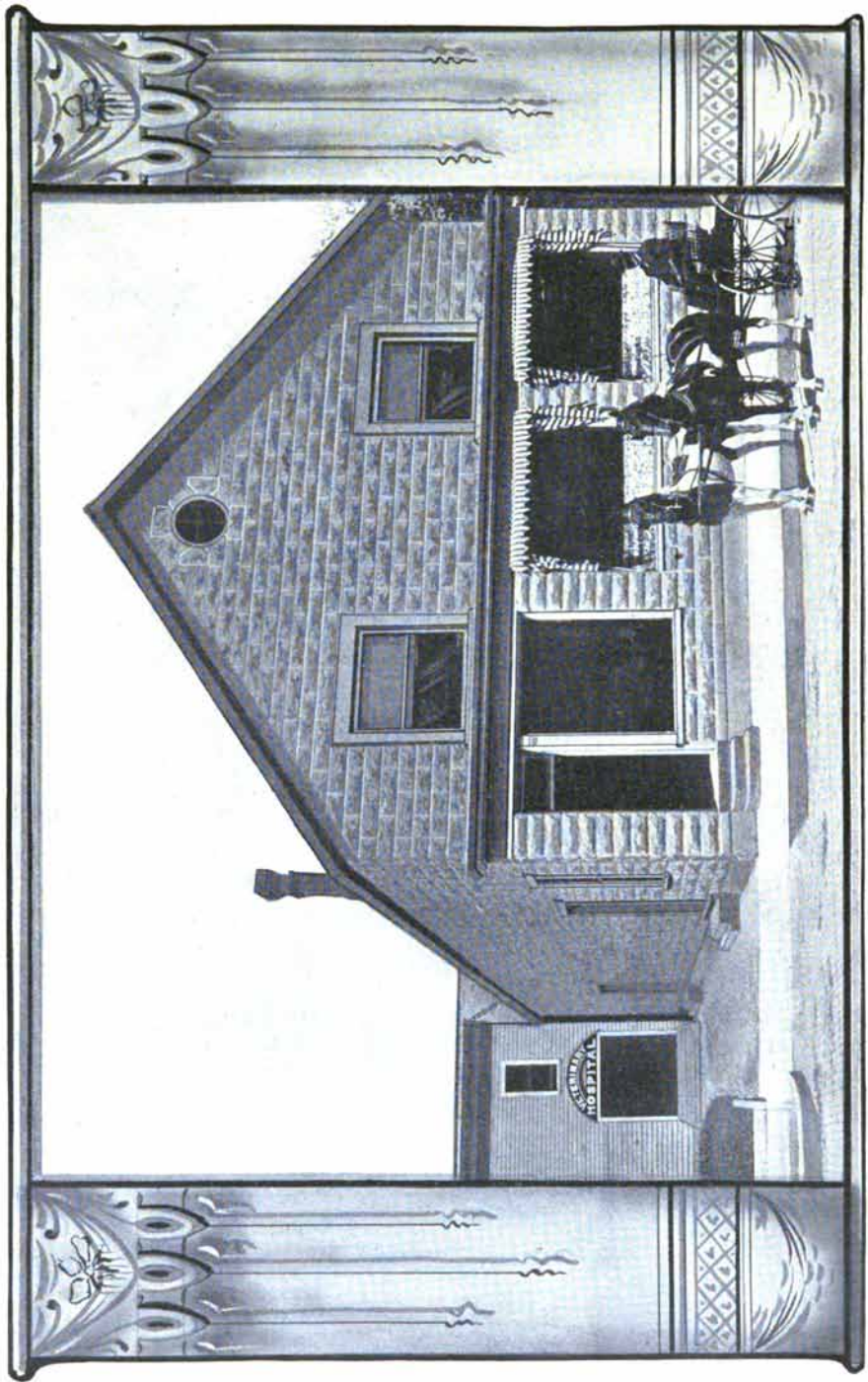
listing the best Disinfectants, Medicines, Stock Foods and Appliances required in the handling and treatment of Live Stock of all kinds.

Written and Compiled by

**DAVID ROBERTS D. V. S.
Cattle Specialist**

President of

**DR. DAVID ROBERTS VETERINARY CO.
WAUKESHA, WISCONSIN.**



HOME OFFICE AND DR. DAVID ROBERTS WITH HIS ARABIAN TEAM.

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INTRODUCTORY



THE only way" by which the farmer, dairyman, poultryman, stock or cattle owner can realize the most from his investment and his labor is by continually guarding the health and welfare of his live stock as a precautionary measure, and to employ the most advanced remedies and discoveries in eradicating disease as soon as it appears. It is the object and purpose of this book to present in clear, concise and simple language, facts with which every farmer and cattle owner should be acquainted. It gives you a brief history of the most important farm animals, also interesting statistics. It tells you how to care for and manage your live stock. How to keep them in good condition so as to always produce the best results. How to prevent disease. How to know disease when it does appear, and lastly, how to treat and overcome disease. The precautionary measures, to start with, are absolute cleanliness, with conditions and surroundings as sanitary as possible. Then it is necessary at all times to have on hand a sufficient supply of good disinfectants, to destroy parasites and germ life of all kinds, which multiply so rapidly and exist everywhere, especially where cleanliness is neglected.

In this book we make mention of the different diseases to which live stock is subject, and we treat at some length on those for which we have a positive, tried and tested remedy. We make note of other diseases for which we do not claim to have a prepared remedy, and these subjects will be a matter of correspondence direct with Dr. David Roberts, who will give each and every inquiry his careful and personal attention. In regard to the remedies which are offered in this book, we wish to say that they are the results of thousands of experiments and the experience of over sixteen years of active veterinary practice in the richest dairy cattle section of the United States. Exceptional opportunities have been offered Dr. David Roberts for studying the cause and effect of such complicated and persistent diseases as Abortion, Barrenness, Retention of the Afterbirth, and Scours in Calves, and on these subjects he is a recognized authority, as hundreds of unsolicited testimonials will prove. The claim, as is often made, that the simple feeding of some of the so-called stock foods is a universal cure for all of these ailments is a rank fallacy and is an insult to the intelligence of the owners of live stock.

Abortion, for instance, is a germ disease; the germ is found in the mother's blood, afterbirth and bowels of the fetus, and such conditions can only be corrected by the injection of a serum into the blood which will destroy and eradicate the germ and thus restore the animal to a healthy condition.

We make mention of this to illustrate that the treatment and remedy for many of these diseases is the subject of much deep scientific study, and cannot be successfully handled except by a man of much experience and practice. These things cannot be learned solely from books. The knowledge must be acquired from the most thorough and successful of masters—Experience and Practice. Dr. David Roberts in his daily

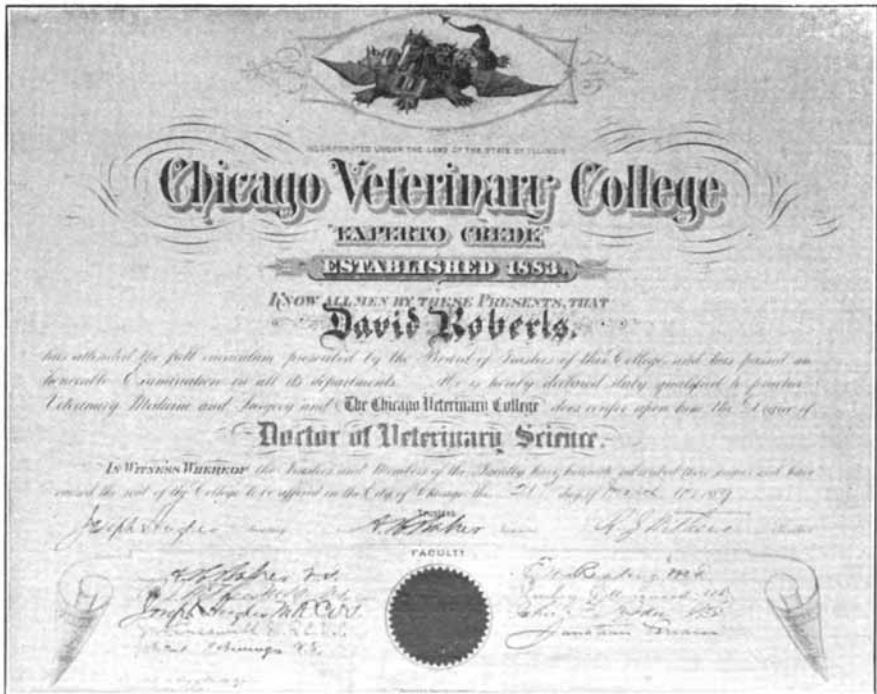
practice administers with unequalled success exactly the same remedies which are offered you here, and with his letter of advice and instructions you can accomplish the same wonderful results in your herd which he meets with wherever he is called. The remedies here offered, in addition to being used by Dr. David Roberts in his practice, have been used to a great extent by live stock owners throughout the country, and have met with marked success. For this reason it is our purpose to now introduce them to every owner of live stock in America, and if you should give them a trial and find them to do what we claim, it would be a move in the right direction and a boon to the suffering animal kingdom if you would recommend them to your friends and neighbors.

With the above remarks we will close our introductory chapter, and would request that you read carefully the following pages, which we are certain will result to your benefit.

We hope after reading this book we will have convinced live stock owners that after all has been said on the subject, the fact cannot be denied that to guard and protect the health and comfort of your animals is, and truly is, "The Only Way."

DR. DAVID ROBERTS VETERINARY CO.,

DR. DAVID ROBERTS, *Cattle Specialist, President.*



Fac-simile of Dr. David Roberts' Diploma from Chicago Veterinary College.



DR. DAVID ROBERTS.

BIOGRAPHICAL SKETCH

Dr. David Roberts has for years occupied a conspicuous place among the veterinarians of the United States, and at the present time occupies the position of State Veterinarian of Wisconsin. His work has been of unusual importance to the live stock interests of the Northwest. He has traveled widely in the practice of his profession, and through his efforts infectious diseases have been stamped out from among many valuable herds in all parts of the country.

For generations back the Roberts family has been interested in the breeding and treating of live stock. Twenty-five years before any veterinary college had been established in America, J. P. Roberts, the grandfather of Dr. David Roberts, was engaged to some extent in treating horses and cattle. His father, John M. Roberts, was a well-known stock raiser and farrier, his services being in demand even at the present time, owing to his experience and good judgment.

It will thus be seen that Dr. David Roberts was, in a measure, born in this profession.

During the early part of Dr. David Roberts' life he attended the district school and later entered Beloit college. Returning from Beloit he successfully managed his father's stock farm with its extensive milk interests and a side line of draft horses, hogs and sheep. His great natural love of stock, and the success which attended his every effort with them persuaded him to enter the Chicago Veterinary College in order that his usefulness to domestic animals, which serve mankind so faithfully, might be extended.

In 1889 Dr. David Roberts graduated from the Chicago Veterinary College, and his desire of becoming a cattle specialist induced him to leave the larger cities and locate in the beautiful city of Waukesha, which is in the very heart of the large dairy industry of this great state, where he has since 1889 enjoyed a large cattle practice. While he has devoted his time to the general practice of the Veterinary Science, still it must be understood that he is eminently a

CATTLE SPECIALIST.

and as such is far more competent to handle and treat the complicated diseases of dairy cattle than one who has not paid particular attention to this line of work. On account of the magnitude of the cattle industry in this country, the Doctor places this branch of the practice ahead of all others, and it is with pardonable pride that we refer to his magnificent success in this field.

In the discovery of the Anti-Abortion Serum, Dr. David Roberts has rendered a service of the highest importance in the cattle industry of the world. It is a matter of great notice to owners and breeders of live stock that this Serum, along with numerous other scientific prescriptions that he has employed with such remarkable success in his extensive practice, have been placed on the market in such form as to be readily available.

The Doctor has built up the largest cattle practice in the Northwest and is prepared to visit any part of the United States on important cases, details of such trips to be arranged with him by correspondence.

DEPARTMENT OF FREE ADVICE.

We have a thoroughly equipped organization, all under the direct supervision of Dr. David Roberts, and with the systematic arrangement of our work we can handle an unlimited amount of correspondence. We invite Farmers, Dairymen, Poultrymen, Stock and Cattle Owners and Veterinarians to write Dr. David Roberts on any subject whatsoever pertaining to live stock, and you will receive a prompt, courteous and satisfactory reply by return mail, which may save you many dollars and be of great benefit to you. You may say that this is a rather philanthropic proposition, which it certainly is, but we feel that the cost and labor of such correspondence and free advice is fully offset by the value of the introduction to you and the fact that we will become better acquainted and lasting friends. We know that with our book in your hands you will find occasion at different times to refer to it, and the result of such reference may prove to our mutual benefit. We know that there are many little things that you would like to know from time to time about your stock. The only trouble is, you don't know to whom to apply. Now write us all about the difficulties you are experiencing with the different live stock you own, and your letter will be treated confidentially and have the prompt attention of Dr. David Roberts. And remember this is absolutely free of charge. From the Doctor's vast experience, he can surely suggest a solution to your problems, and we know the reply will be satisfactory and profitable to you.

Do not delay the matter, but write at once. Delays are dangerous.

DR. DAVID ROBERTS VETERINARY CO.,

DR. DAVID ROBERTS, *President.*

LABORATORY AND EXPERIMENT STATION.

We maintain a very extensive Laboratory and Experiment Station, equipped with every modern facility and device for the compounding of our various medicines and the conducting of experimental work in every branch of veterinary science.

Here Dr. David Roberts and his assistants devote a portion of their time to important research work.

In conducting experiments to determine the effect of contagious and infectious diseases, we inoculate guinea pigs, which develop the disease, and post-mortem examinations are held, which enable us to arrive at the absolute facts in every case.

Another department of investigation which is of great value to the live stock industry is the analysis of stock foods, with which the country is being flooded.

Dr. Roberts' analysis of various stock foods shows that there is an alarming tendency on the part of unscrupulous manufacturers to employ black antimony and other dangerous chemicals, the use of which is a danger to the health of live stock, as the effect of same is to cause "quick fattening," which is in reality nothing but bloating or puffing of the tissues.

The animal takes on the appearance of fattening rapidly while "black antimony" foods are being used, but this being merely an unhealthy condition of the flesh, the effects disappear on discontinuing the black antimony foods, leaving the animal in much worse condition than before.

The preparing of Dr. David Roberts' Anti-Abortion Serum, and the various other medicines for diseases of live stock, is surrounded with every possible safeguard to insure the absolute purity of the product.

All bottles, flasks, tubes and other apparatus are thoroughly cleansed and sterilized.

Throughout the entire establishment every precaution is taken with a view to securing perfect cleanliness.

Before the Serum goes upon the market it is subjected to physiological test upon guinea pigs, and also to the most rigid bacteriological tests to prove that it is pure and of full strength.

TO THE VETERINARY PROFESSION.

The value of an Anti-Abortion Serum in preventing, treating and overcoming Infectious Abortion in cows is now established beyond a doubt, and the few veterinarians who do not recognize this as a fact form a very small and constantly decreasing minority of the veterinarians.

For this reason there is a constant large demand for this reliable product.

To meet this demand the Anti-Abortion Serum is offered, and the universal satisfaction it has given verifies its high standard of quality.

As yet I confine the output of this Serum to the treatment of Infectious Abortion in cattle only, and do not advise its use on other stock until proved beyond all doubt that it is absolutely reliable in their cases as it is in cattle.

I have endeavored to present the facts in such a light that every veterinarian who reads this may get a comprehensive idea of what is meant by the Serum treatment of Infectious Abortion in cattle.

I have purposely avoided technicalities as much as possible, choosing rather to present scientific facts in a clear and intelligible manner.

I believe that when veterinarians familiarize themselves with the Serum treatment, and the results which they can obtain by the use of same, that they will in time become constant users of this, the most scientific and professional manner in which to handle this dreaded disease, Infectious Abortion in cows, which is costing your clients many hundreds of dollars yearly.

I know that the use of the Serum treatment in preventing and overcoming infectious diseases in stock is the correct method. In view of this, I shall exert strenuous efforts to remain in the front ranks of scientific and practicable development in this work.

That infectious diseases are caused by germs is admitted by nearly all persons who are at all conversant with what has been done in the world of veterinary science during the last few years.

Infectious Abortion, Calf Cholera, Tuberculosis and several other diseases of infectious forms are known to be caused by the presence of germs, which differ in form, size, mode of growth, and microscopic appearance.

By means of these germs we can transmit these diseases from one animal to another, and by taking a small quantity of liquid from a cow afflicted with Infectious Abortion, and injecting it under the skin of a pregnant guinea pig, it will cause her to abort, and if other pregnant guinea pigs be in the same pen they will also abort.

I merely mention this experiment to show the infectious nature of germs of abortion, which produce this disease in cattle.

In the light of such proof, and in accordance with the acknowledgment of the scientific world, the only proper way to control and combat germ diseases is by the proper administration of a *SERUM*, specially prepared for the purpose of destroying the germs which produce the disease.

In this particular case, we have to contend with germs which produce abortion in cows; it is for this reason that I have prepared a Serum which if injected underneath the skin will come in actual contact with and overpower the germs of abortion. Its wonderful effects can best be seen in injecting it under the skin of a cow which is showing every sign of an approaching abortion (such as swelling of the udder and vulva), then watch these symptoms disappear and the cow carry her calf full time. You will then become an eye witness of what power of control the Serum has over the germs that produce the symptoms, and if they were not disturbed, they would produce abortion, in such a case.

This Serum represents the highest attainment in Serum production, and has no equal.

The most new and improved methods are used in its production. Before being shipped, it is carefully examined, in order to establish its correctness in every particular.

Yours very truly,

David Roberts D.V.S.

HOW TO EXAMINE A SICK ANIMAL.

First take the temperature of the animal, by placing a self-registering Veterinary Fever Thermometer into the rectum, allowing it to remain there from three to five minutes. The normal temperature of a cow is 101 degrees (Fahrenheit) and the normal temperature of a horse is 100 degrees (Fahrenheit); hog, 100 degrees; sheep, 101 degrees.

Second, take the pulse of the animal, which can be found at the angle of the lower jaw bone, where it can be felt by pressing the artery against the bone. The normal beats of a cow's pulse is from 40 to 50 per minute and that of a horse from 33 to 40 per minute.

Third, count the respirations of the animal, or number of times it breathes, by watching the sides of flanks or by pressing the ear to the sides. The normal respirations of a cow is from 15 to 20 per minute, and that of a horse is from 12 to 15 per minute, while resting.

If the temperature, pulse or respiration are found to be higher or faster than the above described you will know that the animal is ailing.

THE CARE AND TREATMENT OF A SICK ANIMAL.

IMPORTANT.

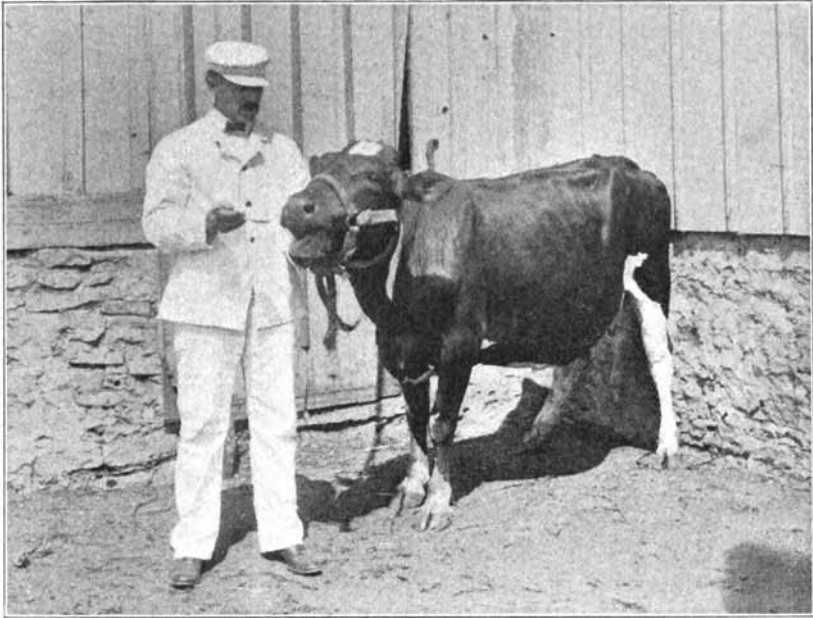
Place the sick animal in a well disinfected, ventilated and dry box stall with plenty of bedding and sunlight. (Avoid draughts.) In cold weather put a blanket on, feed sparingly of digestible feed, such as bran mashes made of linseed tea. Keep manger sweet and clean. Water should be pure and clean, and warmed when necessary. Always necessary for new milch cows.

An injection of warm water per rectum should be given to all sick animals, excepting those afflicted with looseness of the bowels.

NEVER DRENCH CATTLE.

REASONS WHY.

Perhaps the best way of demonstrating the danger of drenching cattle is to advise the reader to throw back his head as far as possible and attempt to swallow. This you will find to be a difficult task and you will find it much more difficult and almost impossible to swallow with mouth open. It is for this reason that drenching cattle is a dangerous practice. However, if a cow's head be raised as high as possible and her mouth kept open, by the drenching bottle or horn, a portion of the liquid is very apt to pass down the wind-pipe into the lungs, sometimes causing instant death by smothering. At other times causing death to follow in a few days from congestion or inflammation of the lungs.



How to Give a Cow Medicine.

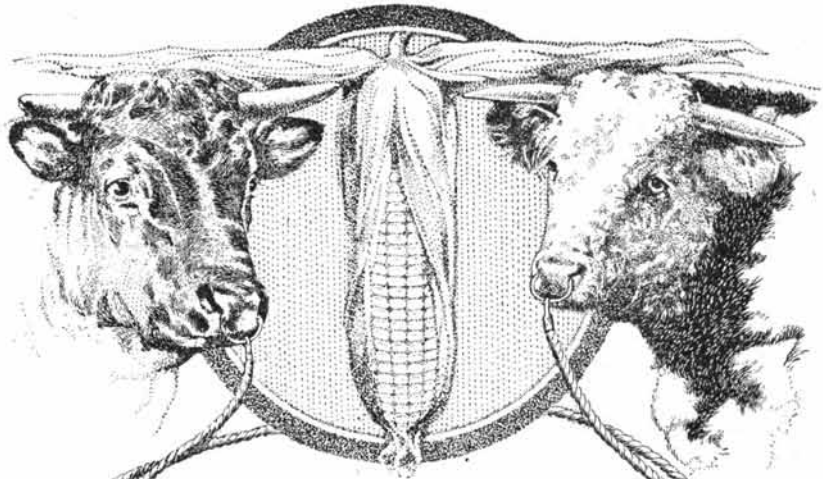
HOW TO GIVE A COW MEDICINE.

Give all cattle their medicine hypodermically or in feed; if they refuse feed give it dry on the tongue.

The proper method of giving a cow medicine is to stand on the right hand side of the cow, placing the left arm around the nose, or placing hand under the jaw, at the same time opening her mouth, and with a spoon in the right hand place the medicine, which should be in a paste or powdered form, back on the tongue; she can then swallow with safety.

TABLE OF GESTATION.

ANIMAL.	AVERAGE PERIOD.	EARLY PERIOD TO LIVE.	LATE PERIOD TO LIVE.
Cows.....	280 days	210 days	336 days
Mares.....	330 days	287 days	409 days
Sheep and Goats.	150 days	140 days	160 days
Sows.....	115 days	105 days	125 days
Rabbits.....	30 days
Elephant.....	730 days



CATTLE

History and Statistics of the Cattle Industry.

A Study of Breeds

Care and Management of Cattle
on the Farm

Diseases of Cattle—How to Know Them—
Method of Treatment

Miscellaneous Information.

(See Complete Alphabetical
Index, Page 5)

HISTORY AND STATISTICS.

The history of the various breeds of cattle with which we are familiar at the present time has been traced back many centuries.

It is reasonably certain that horned cattle first existed in a wild state, long before the dawn of recorded history, and in the Scriptures we find mention of the fact that Jubal, the son of Lemach, living in the time of Adam, is spoken of as "The father of such as own cattle."

It is a fact worthy of note that as man advanced beyond his primitive state, he found it necessary to domesticate certain wild animals for beasts of burden.

It is evident that the subjugation of wild cattle, not only for beasts of burden, but as means of bodily sustentances, first engaged the attention of primitive man as he struggled upward toward a higher plane of living.

We find that several wild varieties of the bovine tribe were originally widely disseminated in Asia and Europe.

From ancient writings and pictures we learn that these wild cattle were frequently the objects of chase by primitive hunters.

It is natural to infer that the animals in their adult state were slain for food, while the young were reduced to domesticity, and by confinement and care lost their wild instincts.

Ultimately these captive animals became fully domesticated, and as the herds increased, and were driven from place to place in search of fresh fields and new pastures, the people who made them captive became nomadic in character—their flocks and herds furnishing them an abundance of food, and the hides affording not only clothing, but shelter for the roving tribes.

The student of racial characteristics and of humanity's upward progress from savagery to civilization finds abundant evidence of the fact that domestic animals were a most important factor in that advancement.

In primitive America we find surprising confirmation of this fact.

In America, where no cattle existed prior to its discovery by the Europeans, and where there were no animals which were easily domesticable as beasts of burden, the Indians, though able folk, remained savages.

It is a fact worthy of note that the first shepherd and the first farmer were contemporaneous. Likewise, the keeping of live stock and grain growing have gone hand in hand down through the centuries.

Every Celtic nation from the earliest period has raised cattle and they have been regarded by all barbarians and pagan people as the greatest of the divine gifts to man.

With the progress of civilization, the least desirable breeds were exterminated, while the fittest survived in a state of domestication. Descendants of one of these ancient herds are still to be found in the Chillingham cattle of England. They are wild only because all possible means are used to keep them so. The wildest and less frequented tracts of two extensive parks are set apart for their use. These are supposed to be descendants of the best of the ancient cattle of Great Britain.

Cattle were first brought to America by the Spaniards soon after its discovery by Columbus. As these bred and increased, the vast plains of Spanish America were covered with innumerable cattle. As these herds increased many of the cattle escaped and got away from civilization, living in a wild state and roaming over vast tracts of ter-

ritory. As civilization has extended into new territory, these wild herds have gradually been brought under the hand of man or have been destroyed, and domestic cattle have taken their place, until at present there are practically no wild cattle in any section of the world.

The cattle which were originally to be found on the western plains and sections of the United States, came from the cattle brought to America by the Spaniards. These cattle were first almost in a wild state, and were only rounded up once or twice a year when the young were branded and the grown animals taken out for shipment.

There are still in the west many large herds of cattle which are kept out on the ranges and only brought up for the branding of the calves and the shipment of the matured stock. But as these western sections of the country are more thickly settled up, these herds are gradually becoming smaller and the ranges are being fenced in so that the cattle are receiving more attention and are gradually being brought up to a higher grade.

These Spanish cattle and their descendants are usually large in size, long legged, various in color, and their distinguishing characteristic is their long and widely extended horns.

The English settlers early introduced cattle in the colonies, bringing them from Great Britain.

In an early day the cattle in the United States were a mixture of various breeds imported by the early settlers, who, for want of good barns, and from habits established in a milder climate, allowed their cattle to suffer severely. Many perished and the survivors degenerated in size and quality. As agriculture advanced and the people became more prosperous the cattle were improved by better care and feeding.



Type of Original Spanish Cattle.

As the English breeds gained celebrity, they attracted the attention of enterprising breeders in this country, who began importing the different breeds, and by strict attention and experience in care and breeding, have continued to improve the grade of cattle in the country. So that at the present time all progressive stock owners are introducing pure bred strains in their herds.

It would be interesting to trace the history of cattle, step by step, in their improvement from the earliest time, but from the facts which history gives it would be a hard matter to get any satisfactory information. The first systematic breeder of whom we have any record was Jacob. It is reasonably certain that he understood something of the principles of mating cattle, but did not use his understanding so much in the matter of improving the breed, or to the good qualities for milking or beef, as he did in producing cattle of different colors.

This was with a view to securing a mingling of these colors in the offspring.

There have been many distinctive breeds of cattle known from the beginning of the historical era. Still, it is only within the last two centuries that any careful, systematic breeding has been attempted, and only within the last seventy-five years have greater results been accomplished and the greatest progress toward perfection been made.

STATISTICS OF THE CATTLE INDUSTRY.

The cattle industry of the United States is one of the greatest industries of the country. Statistics show that for a period extending over fifty years from 1850 to 1900 the number of cattle consumed by the American people has fallen from twenty-five to twenty for every one hundred of the population, the number consumed in 1850 being twenty-five for each one hundred, and in 1900 the number consumed was twenty for each one hundred.

During this time the number of cattle has increased largely, showing a loss during but one decade, which extended over the period from 1860 to 1870, covering the time of the Civil War in the United States.

In 1850 the cattle in this country numbered 18,000,000.

In 1860 the cattle in this country numbered 26,000,000.

In 1870 the cattle in this country numbered 24,000,000.

In 1880 the cattle in this country numbered 33,000,000.

In 1890 the cattle in this country numbered 42,000,000.

In 1900 the cattle in this country numbered 51,000,000.

The last three decades, from 1880 to 1900, inclusive, show a regular increase of nine million each ten years.

During the period from 1890 to 1900 the milk production of this country shows an increase of almost 40 per cent. in the total production. In 1890 the average amount of milk consumed each day by a family of five persons amounted to but little over one pint a day, while in 1900 the average consumption by a family of five persons amounted to one quart a day. This shows the per capita consumption doubled during a period of ten years. During this same year not only the quantity of milk is increased, but also the quality has been steadily improving, so that today one quart of milk contains much more nutriment than it did ten years ago. This increased production and improved quality is due not only to the increase in the number of cows in the country, but also to the improved methods of care and feeding.

The dairy productions of this country show a very marked increase from 1860 up to 1900. In 1860 they were valued at \$240,000,000, increasing from that amount to \$605,000,000 in 1900, being an increase of over two and one-half times in forty years.

In 1850 the amount of cheese produced annually in the United States amounted to but little over one hundred million pounds, which was four and one-half pounds per capita. Today the annual production is nearly three hundred million pounds, which is a little less than four pounds per capita. This shows an increase of nearly three times in total production, but a decrease of one-half pound per capita.

The statistics as to the production of butter are just the reverse of this, as the production of butter has risen from thirteen and one-half pounds to nineteen and one-half pounds per capita during this time.

These statistics only go to show the immensity of the cattle industry of this country, and the increase which has been made during the time which these statistics cover. That the cattle industry has increased to a marvelous extent is known to all, and it is a foregone conclusion that this increase must continue, as the demands for milk and its products, as well as beef, must increase largely with the better methods of living and

the increase of the population. The increase must be not only in quantity, but there must also be an improvement in quality. The demand of the present day is for an improvement in everything, and the beef and dairy products cannot be behind the demands of the country. To meet these demands the stock raiser must bend his energies to improve his stock in every way, keeping them in a strong, healthy condition, caring for them in a proper manner and endeavoring at all times to produce the best quality possible. At the present time there are 61,000,000 head of cattle in this country, consisting largely of the following breeds:

A STUDY OF BREEDS OF CATTLE.

SUSSEX CATTLE.

The origin and history of this breed is somewhat obscure, but the common understanding is that their ancestry is closely associated with the Devons. In England they are bred in the counties of Sussex, Kent, Surrey and Hampshire.

They are usually of heavy breed, equal to the Galloways in weight, but with large frame. They are considerably larger than the Devons.

DUTCH BELTED CATTLE.

Dutch Belted Cattle are a Holland breed, and are so named from the white belt or band which encircles their body. They are now bred to a limited extent in this country, being kept in about twenty-five states in the Union.

Their milking qualities are excellent, and I believe they have a great future.



Dutch Belted.

FRENCH CANADIAN CATTLE.

Were brought by the early settlers of Quebec from France.

As the results of the exposure of this breed to the rigorous climate and long winters of Quebec, they have developed a hardihood that is not found in any other breed of dairy cattle.

KERRY CATTLE.

This is a pure breed, native to Ireland, and derived their name from the county of Kerry. They are very popular in some parts of England, but as yet have not been extensively introduced into the United States. The quality of their milk is rich, almost equal to that of Guernsey and Jersey in butter fat, and they give a large quantity of milk for their size.

DEVON CATTLE.

Of all the breeds of cattle found in Great Britain, the Devons are among the purest and most ancient, and they are descendants of the same breed as the Herefords and Sussex. They are called Devons for the reason that they are originated in Devonshire.

They are smaller in size than the Hereford, Shorthorns, Galloways, and the Sussex. They are noted for the quality rather than the quantity of their milk. They are symmetrical in form and very docile in disposition, and mature quickly. They produce an exceptionally fine quality of meat.

RED POLLED CATTLE.

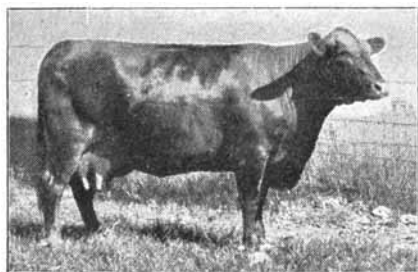
This breed of cattle is the result of a mixture of two types, which are known as Norfolk and Suffolk cattle. The Norfolk type was characterized by a blood red-colored body and mottled head, while the Suffolk type was originally a sort of mouse color. For over a century both have been freely intercrossed and have been recognized as one breed since 1846.

POLLED DURHAM CATTLE.

The Polled Durham is one of the most important of the dual-purpose breeds, and is of American origin.

This breed meets the growing demand for cattle with all the essential characteristics of the Shorthorns, yet without horns.

They are descended from both the Scotch and English Shorthorns.



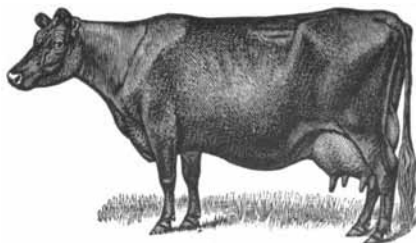
Polled Durham.

Polled Durham are good beef animals, but the development has been largely in the direction of superior milking qualities. They are raised quite extensively in the middle states, and are destined to become a very popular breed.

A man can make a success with any breed if he takes a liking to it, but do not select a brand that you do not like, as you will never take sufficient interest in your work to be successful. Use your own judgment.

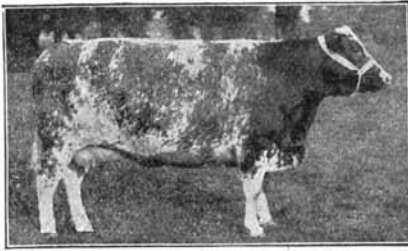
DUAL PURPOSE CATTLE.

Dual Purpose Cattle are a mixture of breeds, and produce a reasonably large flow of milk, also grow to sufficient enough size to be profitable as beef animals. They can be easily fattened, should occasion require, to dispose of them for beef. The requirements of a good dual purpose cow are that she be reasonably large in size; that the milk veins show good development, and that she be of a mild disposition, and not high strung and nervous. Other points to be considered are their powers as milk producers, their appearance and size for beef. More profit is to be made by preserving the purity of breeds.



Dual Purpose.

The selection of a breed we leave to the farmer himself, as he best knows his conditions and requirements.

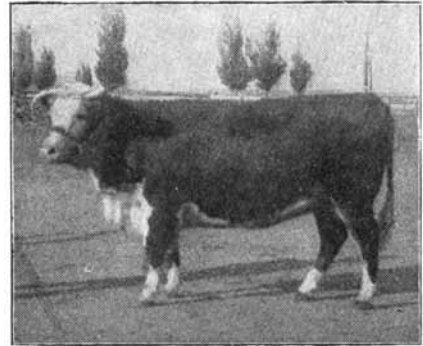


Shorthorn.

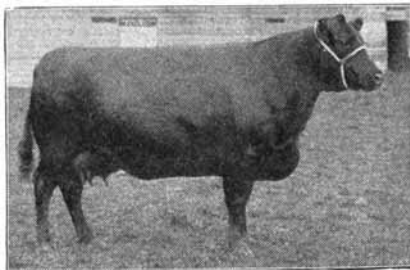
HEREFORD CATTLE.

The Herefords are natives of the shire of Hereford in England. In color they are red, with white faces and breast, a white stripe along the back, and white legs and belly. They possess the same beef qualities as the Shorthorn, but are better grass cattle.

The Aberdeen-Angus and the Galloways are natives of Scotland. In color they are black, and have no horns.



Hereford.



Aberdeen-Angus.

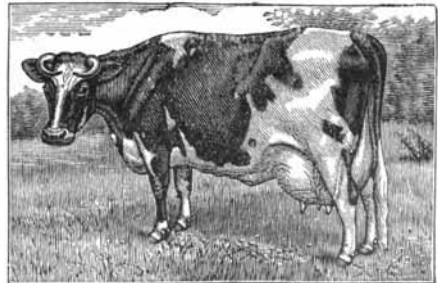
The Holstein, the largest of our dairy breeds, came from Holland. They are black and white in color. They consume a large amount of roughage and coarse fodder. They give a large flow of milk, but the percentage of butter fat is not as high as in some of the other breeds. Their milk is especially adapted to cheese-making.

Owing to the large amount of milk they give, the Holstein will make as much butter as some of the other breeds; at present they hold the world's record for butter.

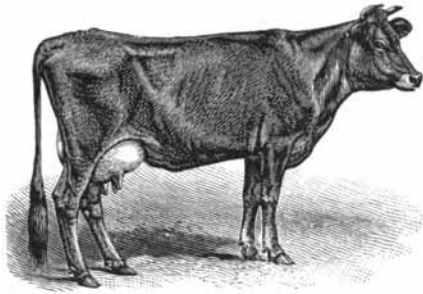
GALLOWAY CATTLE.

The Galloways are not as large as the other half-breeds and do not mature at such an early age.

In other respects there is little to choose between any of the beef breeds.

HOLSTEIN CATTLE.

Holstein.



Jersey.

JERSEY CATTLE.

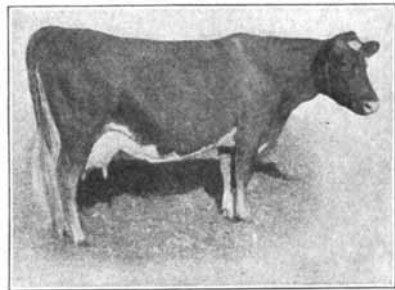
Jersey cattle come from the Jersey Islands, off the coast of France. In color they are of different shades of fawn, and fawn and white. They give very rich milk, which is especially adapted for butter-making. They cross well with other breeds of cattle for dairy purposes.

AYRSHIRE CATTLE.

The Ayrshire is a Scotch breed, coming to us from the County Ayr, Scotland. They are good grazers and do well in hilly and rough pastures. Their milk ranks with that of the Holsteins.

GUERNSEY CATTLE.

The Guernsey, like the Jerseys, are producers of rich milk. They are a little larger and harder than the Jerseys. Their home was the Guernsey Islands. They are dun or reddish in color, with white spots.



Guernsey.

BROWN SWISS CATTLE.

The Brown Swiss, as their name indicates, come from Switzerland, and coming from such a mountainous country, are well adapted to grazing over rough and unbroken pastures. They are hardy and good size, and of a coarser build than other breeds. They give a good flow of milk of a fair percentage of butter fat.

CARE AND MANAGEMENT OF CATTLE ON THE FARM.

The cattle barns on the modern farm should be located on a well drained spot. There should be enough windows to allow an abundance of air and sunlight, for these are necessary to keep the animal in the best health.

Then, too, the stable must be properly ventilated so as to remove foul air and supply fresh, pure air for the animals to breathe.

The temperature of the stables, in winter, should be about 55 degrees F., and in summer as cool as possible. Provide screens for the windows so they may be left open, and spray daily with some reliable fly oil, and you will not be troubled with flies.

Use a good disinfectant, keep the stables clean, and you will have a sweet smelling stable, free from all bad odors.

Now you have your stables in order and will want to build up a good herd of cattle.

Before deciding on any breed you must take into consideration your location, markets and way in which you wish to dispose of your products.

If you wish beef, select one of the beef breeds, such as the Shorthorn, Hereford, Aberdeen-Angus or Galloway.

SELECTING A BEEF HERD.

In building up a herd for beef production, select cows with a broad, deep and square body, cows with a good coating of flesh, for these, if bred to the right kind of bull, will produce a calf that will prove a profitable feeder. Now for the bull. The bull is half the herd. He stamps his qualities on all the calves—not simply on one calf a year, as with the cow.

Get a registered bull of the breed you want, even if you have only grade cows, as then you are sure you are getting a beef breed from beef ancestors. Select a bull that is of good size, with a proud masculine bearing, a good intelligent head, broad and full between the eyes, a short face, and strong, clear eyes, yet with a quiet expression, as a nervous, excitable animal will never fatten to good advantage.

He should be broad and straight across the back, with smooth, even hips. He should have well sprung ribs, heavily covered with flesh.

Spring is the natural season for cows to drop their calves, and the cows should be bred so as to drop their calves in the early spring, and then when the cows are turned to pasture in the spring, the calves are old enough to go with them and thus have advantage for making a rapid growth and require very little attention during the busy summer months.

When the calves are a few weeks old they should be castrated and the wound washed with some good germ-killer, so it heals rapidly.

In the fall the calves should be weaned and fed on good, nutritious food.

This should consist of silage and roots, clover or alfalfa hay, oats and bran—equal parts, with daily allowance of some reliable stock food to aid digestion and promote a quick growth.

The age at which steers should be marketed depends largely on the market prices, but as a rule well fed steers sell best at 14 to 16 months old. But if you do not wish to dispose of your product as beef, then you must choose one of the dairy instead of beef breeds of cattle.

THE DAIRY HERD.

The principal dairy breeds are Holstein, Jersey, Guernsey, Ayrshire and Brown Swiss.

There are several other dairy breeds, such as the French Canadian, Kerry and Dutch Belted, etc., but these are rather scarce at present.

In buying dairy cows we have a different standard to go by than in selecting a beef animal.

A dairy cow is a machine that turns feed into milk and cream. So we must look for one that will convert the greatest quantity of feed into the most milk and cream. The type of dairy cow we want is a cow weighing about 1,000 pounds. She must have a lean head and neck. Her eyes should be clear and large, indicating health and temperament. Her body should be narrow over the shoulders, and broad at the hip and rump. She should have a large chest, indicating vitality. Her pouch or belly should be large, showing that she is able to consume a large amount of rough feed.

She should have a set of large, branching milk veins leading to a well developed udder on which are placed four good-sized teats.

She should carry very little flesh.

Before introducing any new cows into the stable have them tuberculin tested to avoid bringing any cows affected with this germ disease among your healthy herd.

Watch for any discharge which might be due to abortion, as this is another disease you must watch.

If you notice any discharge of this nature, wash out the vagina with a good antiseptic solution and keep cow alone until cured.

FEEDING DAIRY COWS.

Dairy cows require different feed than beef cattle.

We should not feed much fat-forming foods, as our cows would lay on fat instead of producing milk. Feed more silage or roots in the winter season.

Daily feed for a 1,000 pound cow, give forty pounds of silage, seven pounds clover hay, eight pounds of grain.

The cows that are soon to calve should be fed on succulent feed, such as silage or roots and bran and linseed meal, with a little oats. Keep the bowels open and do not feed very heavy on grains just before or after calving. After calving give a bran mash and warm the drinking water for a few days. Allow the calf to suck for about two days and then feed his mother's milk from a pail for two weeks, about three quarts twice a day; after that reduce it with skim milk or warm water, so that at the end of the fourth week the calf will be getting all skim milk or half whole milk and half warm water, with some reliable stock food to aid digestion. Keep a supply of good clover or alfalfa hay within reach, and also some ground oats with a little linseed meal mixed with it. After the calf eats the ground feed, gradually get him used to eating whole oats, as this is the best feed for him up to six months old. The heifers should not be bred until about 15 to 18 months old.

A good time to do your dehorning is to dehorn the calves with a good dehorner, see page 100, when they are a few days old. Mark them with a number tag so you can keep a record of them.

Keep a record of the breeding of each cow, so you will know when she is due to calve, and then allow her to go dry for six weeks before calving.

The dairy bull should be fed like a working horse and should receive plenty of exercise. Work him in a tread power.

The milking is one of the most important parts of the dairy business. The cows should be milked quickly, cleanly and quietly. Do not excite your cows or they will not let their milk down. Don't lick a cow because she kicks. If she kicks, there is some cause for it. Look for the cause and remedy it. It may be a sore teat, it may be an inflamed udder or it may be that she has been misused and regards her milker as an enemy that she must fight. If such is the case treat her kindly and she will soon learn that you are not going to harm her.

Clip the long hair off the udder and flanks and tail, and wipe off the udder with a damp cloth before milking, and you will be surprised to see how much cleaner the milk will be.

Weigh each cow's milk with an accurate scale and test the milk with the Babcock test, and you will be able to see how many of your cows are paying for themselves.

TESTING FOR BUTTER FAT.

To test milk for butter fat you must have a Babcock Tester and bottles. You measure the milk with a pipette. Measure 17.6 c.c. (cubic centimeters) of milk with the pipette and put in the test bottle. To this add 17.5 c.c. of sulphuric acid and mix by shaking.

Then put it in the tester and run the tester for five minutes and then add enough warm water to bring the butter fat up into the graduated neck of the bottle where it can be read. Run the tester one minute more and your test is ready to read.

You know how many pounds of milk your cow gives and how much it tests. Now, to find how much butter she is producing: Multiply the pounds of milk by the per cent. of butter fat, and then multiply by one and one-sixth and this will give you the amount. For example, your cow gives in one day, 38 pounds of milk testing 4.2 per cent. You multiply 38 pounds milk by

.042 butter fat

76
152

1.596 pounds butter fat

One pound of butter fat will make $1\frac{1}{6}$ pounds of butter, so you multiply $1.596 \times 1\frac{1}{6} = 1.862$ pounds butter.

This shows just how much butter your cow is producing a day.

If you sell your butter at 25c your cow is earning $46\frac{1}{2}c$ a day.

1.862 pounds butter
\$.25
9310
3724
\$46550

From this subtract the cost of feed and you will have the net earnings of your cow.

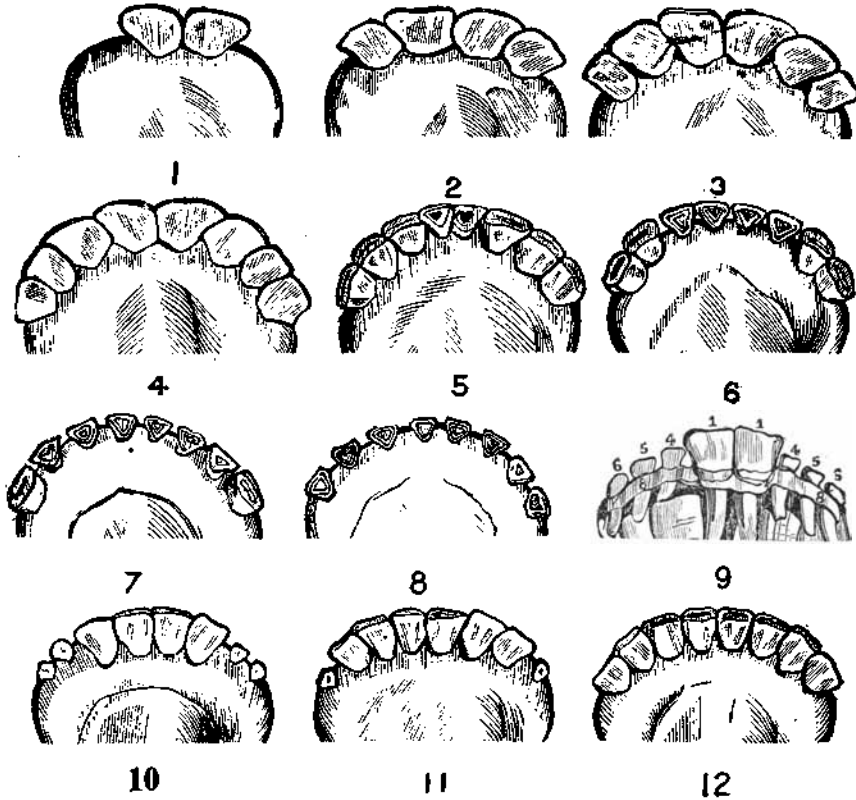


Figure 1.—Teeth of calf at birth, showing the first two incisors, milk teeth.

Figure 2.—Teeth at two weeks old, showing four temporary incisors.

Figure 3.—Teeth at three weeks old, showing six incisors.

Figure 4.—Teeth at one month old, showing eight incisors, or full set.

Figure 5.—Teeth at six or eight months old, showing wear on first two, or central teeth.

Figure 6.—Teeth at ten months old, showing absorption in first two pair of teeth, and wear of two outside pairs.

Figure 7.—Teeth at twelve months old, showing absorption in all the nippers, except outside pair, and wear in these.

Figure 8.—Teeth at fifteen months old, showing absorption and wear in all the temporary nippers.

Figure 9.—Teeth at eighteen months old, showing two first permanent incisors (1-1) and next two pairs (2-2) and (3-3), growing and pushing upwards toward the surface; also (4-4, 5-5 and 6-6) showing absorption. At (8-8) is shown the alveoli, or cells for the teeth.

Figure 10.—Teeth at two years old past, showing four permanent incisors, and four temporary ones, absorption nearly complete; also marks of wear on two first pairs.

Figure 11.—Teeth at three years past, showing six permanent nippers, and two outside temporary ones nearly gone; also wear on two central pairs.

Figure 12.—Teeth at four years past, showing eight permanent incisors—the full mouth—and complete completion; also wear on all but outside teeth.

Figure 13.—Teeth at five years past, showing wear and dark marks.

Figure 14.—Teeth at ten years old, showing permanent spaces between them; also shape from natural wear by use.

SYMPTOMS AND TREATMENT OF CATTLE DISEASES

ABORTION

Abortion is the premature expulsion of a foetus at a stage when it has not attained sufficient development to live external to its mother, and is caused by an interruption of the natural condition of pregnancy.

In the modern way of thinking, disease is a disturbance of the natural play of one or different parts of the body; the reaction of an unaccustomed influence, and according to the germ theory, the foreign influence producing this disturbance is the existence of a germ in the interior of the animal body.

CAUSES OF ABORTION.

When germs vegetate or multiply in the animal's body there occurs a struggle for life between the germs and the animal cells. This battle produces outward symptoms which are an evidence that the struggle exists within the body and it must result in the victory of one or the other. If the battle is won by the animal cells, the disease is checked and the animal is restored to health; while if the germs win, the animal will remain diseased.

ABORTION IS A GERM DISEASE.

Abortion is a disease, and has been proven beyond all doubt to be a germ disease, and therefore infectious.

A FEW TESTS.

One of our many experiments was selecting a herd of twenty-one cows, seven of which had aborted between the fourth and seventh month of pregnancy. Wads of cotton were soaked in the fluid of one of the seven and placed in the vaginas of three healthy pregnant cows in another herd one mile away, the cotton being allowed to remain one hour. One of the cows aborted in twenty-three days, the other in twenty-eight days—one being in the fourth and the other in the fifth month of pregnancy; and the third cow, being in the seventh month of pregnancy, aborted on the fortieth day following the experiment—the calf dying three days later of scours.

In another experiment a cow fell into a well that was being dug and aborted the following day, she being in the sixth month of pregnancy. Wads of cotton were soaked in her fluid and placed in the vaginas of three healthy pregnant cows in the same herd, but produced no bad results.

In the light of such proof, abortion is classed and must be treated as a germ disease.

OTHER ANIMALS CAN CATCH THE DISEASE FROM COWS.

The virus from an aborting cow has been known to cause abortion in mares, ewes, and sows.

The germ of abortion is found in the mother's blood, in the afterbirth, and in the bowels of the fœtus. It is for this reason that the afterbirth is so often retained and prematurely born calves usually die of diarrhoea or scours.

A HERD AFFLICTED WITH ABORTION IS A MONEY-LOSER.

Many dairymen and breeders of long experience are seemingly unaware of the fact that a herd afflicted with abortion is usually kept at a great loss to the owner from shortage of milk and loss of calves.

Reliable authority places this loss at from \$12.00 to \$25.00 per head per annum.

THE EFFECT OF SELLING ABORTING COWS AND BUYING OTHERS INTO THE HERD.

Many have attempted to eradicate abortion from their herd by selling the cows that have aborted and buying others in their places. It has been found, however, that the cows introduced into the herd became infected by those retained, and in this manner the disease may continue in a herd indefinitely.

HOW TO KNOW WHEN YOU HAVE ABORTION IN YOUR HERD.

A number of cows aborting in a herd should be looked upon with suspicion and any of the following signs looked for: Swelling of the udder and vulva; separation from balance of the herd; dullness; cease chewing of the cud; restlessness; stamping of the hind feet; passing of a small water bag and a little later a fœtus. Sometimes both are expelled together, then again the fœtus will be expelled and the afterbirth retained.

In the early stage of pregnancy the fœtus will be expelled without much labor, while in the later stage of pregnancy it takes on a more normal condition, except that there may be a retention of the afterbirth, and in some instances a cow will come in heat at unreasonable periods, such as the day following abortion.

ALL COWS SHOULD BE EXAMINED.

The best possible way to examine a cow, heifer or calf to see whether they are infected with the disease of abortion is to have your helper hold aside the tail of the animal, then with your two hands open up the lips of the vulva, and if you see a number of small red pimples you can rest assured that this animal is infected with abortion and is in condition to spread the disease and infect the herd bull. If with this symptom you see a gathering of white matter inside the vulva, this indicates that prompt action must be taken, as she is badly infected. I would advise stock raisers to make this examination of their cattle every thirty days. The swelling of the udder and vulva are also symptoms of approaching abortion.

ABORTION CAUSES BARRENNESS.

When there is a retention of the afterbirth, a catarrhal discharge invariably follows.

During this period experiments and experience have proven that it is almost impossible to get a cow with calf.

The catarrhal discharge may cease, but usually not until it has irritated the mouth of the womb to such an extent as to cause a cartilage growth and contraction, and almost a complete closure of the mouth of the womb, which is a cause of barrenness.

Cows often carry their calves full time even when infected with the germ of

abortion. Even then barrenness may follow. A shortage of milk may be noticed which might be attributed to some other cause.

These calves may show weakness and die of diarrhœa or scours, which really is calf cholera.

ACTION OF PREMATURE CALVES.

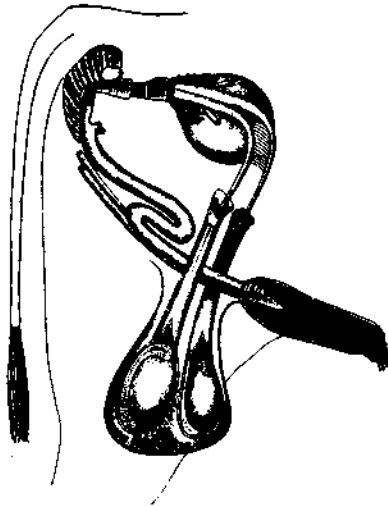
Calves expelled during the seventh and eighth month of pregnancy, which live, are usually dull, quiet, and sleepy. Their bellowing, if they should bellow, is a pitiful, heart-rending sound, and as they approach their natural period of birth, they brighten up. These calves are called living abortions.

Calves carried full time, as well as premature calves, if taken to a healthy herd are liable to carry the disease, and often do.

The offspring of cows infected with the germ of abortion often have enlarged glands of the throat, a diseased condition of the naval cord, sunken eyes, and sometimes blindness.

BULL CARRIES THE DISEASE.

A bull serving a diseased cow becomes infected, and is then in a condition to transmit the disease to any cow he serves while he remains diseased.



Genital Organs of Bull.

TREATMENT FOR ABORTION.

Dr. David Roberts' Anti-Abortion Serum will positively prevent and cure abortion in cows. This Serum is the result of years of careful study and experiments, and was not offered to the public for general use until actual experience proved the above statement.

The Serum (see page 139) is put up in six-ounce bottles, and is ready for use when received—no measuring or mixing required—and is injected under the skin just back of either shoulder-blade, by the use of a hypodermic syringe (see illustration, page 166).

It requires but one minute to treat each animal, and anyone can use the hypodermic syringe with perfect ease. This treatment is the cheapest, easiest and simplest treatment known to the veterinary profession.



Dr. David Roberts Administering his Anti-Abortion Serum.

By injecting Anti-Abortion Serum in under the skin of the cow, heifer or bull with the use of a hypodermic syringe, every germ of disease in the system of the animal is destroyed. By washing out the sheath of the bull and the vagina of the cow with an antiseptic solution made with Antisepto, the germs that gather in the discharge are entirely removed, and by disinfecting the stables with Disinfectall every germ of this disease on the premises is destroyed. In this way the disease of abortion is met at every turn, and it is absolutely impossible for the germs to exist when treatment has been carried out in this manner.

All cows and heifers having a catarrhal discharge should have their genital organs washed out with a solution of Antisepto (see page 140), also the sheath of the herd bull.

CARE OF HERD UNDER TREATMENT.

A cow in heat should be kept in during that period.

The bull should not be allowed to run with the herd, and should not be allowed to serve cows from other herds; nor should you take your cows to other herd bulls.

A cow that has aborted should not be bred until such time as she would have come in heat if she had carried her calf full time, and not then unless she is perfectly clean and free from any vaginal discharge.

Isolate to a quiet stall, any cow that may show signs of impending abortion, such as flabby condition of the vulva, looseness of the pelvic bone, restlessness and bellowing. If she aborts, keep her isolated three weeks; if not she may be returned to the herd when symptoms have disappeared.

Never allow a cow to calve among other pregnant cows.

Bury or burn afterbirth or fœtus, and thoroughly disinfect the stalls.

Special care should be taken in keeping stables clean and well ventilated. The liberal use of white-wash, and plenty of sunlight are desirable, also disinfect thoroughly with Disinfectall (see page 164).

AFTERBIRTH RETAINED.

The retention of the afterbirth or placenta (or failure to clean beyond a certain time after the expulsion of the fœtus or calf from the uterus) must be looked upon



Showing how easily Serum can be administered in run.

as an unnatural condition which requires attention. The afterbirth should be shed or expelled soon after the fœtus is dropped or the calf is born. With ruminants (or animals that chew the cud) retention of the afterbirth is not uncommon, though even in them there is a difference in this respect according to species, it being more common in the cow than in the sheep or goat.

This frequency of retained afterbirth in the ruminant animals is doubtless due to its peculiar conformation or button-like fastenings.

COW RUINED AS A PROFIT PRODUCER.

While a cow may appear to be a little inconvenienced by the retention of the afterbirth, at the same time she is, if neglected, being slowly ruined as a milker, breeder, or profit producer.

NEGLECTED COW ENDANGERS THE WHOLE HERD.

A cow that has retained her afterbirth is not only being ruined as a profit producer by being neglected, her milk will not only be short in quantity, poor in quality, but absolutely unfit for human use. She may also be acting as a hotbed for the propagation of the germs of infectious Abortion and Tuberculosis. These may be brought on by decomposition of the retained afterbirth.

THE HERD BULL LIABLE TO INFECTION.

As this continues the animal absorbs the poisonous formations of matter which causes her to grow weak and lose flesh rapidly, thus putting her in a condition so that when she is bred to the herd bull she may infect him with the germ of infectious abortion and he is then in a condition to spread the disease.

In this manner the disease of infectious abortion may be introduced into a herd and great loss caused.

DANGER OF TUBERCULOSIS.

This same cow, in her run-down condition, may also contract tuberculosis, and then expose the entire herd.

HOW TO KNOW IT.

Usually there is more or less of the foetal envelopes protruding and hanging from the vulva orifice, though sometimes only the umbilical cord is to be seen. Occasionally the mass is so large as to hang below the hocks with little sacks of liquid at the lower end. If recently expelled, it has a fresh tint, not materially different from that of the intestines; but if exposed for some time, and especially in the summer, it becomes greyish in color.

Decomposition soon sets in, especially in the exposed parts, and as putrefaction progresses the odor becomes very offensive, and thin bloody brown tinted discharge composed of the decomposed parts of the membrane and secretions from the irritated mucous lining of the genital canal flow from the vulva, soiling the tail, thighs and hocks, and often making them sore.

COW HEALTH IN DANGER.

As these causes continue, the health of the animal suffers. Oftentimes there is dullness, prostration, decreased flow of milk, loss of appetite, quickened respiration and increased temperature and other indications of illness.

Retention of the afterbirth occurs most frequently in cases of abortion or when birth occurs some days before the proper time. Usually a cow that has retained the afterbirth at its first calf will do so at each succeeding birth.

COW UNDER CONTINUOUS DRAIN.

Among the breeding cows the consideration of proper care must be made important in order to make either breeding or dairying profitable. The breeding cow must carry a calf every year, and this notwithstanding that she is at the same time suckling another calf.

The dairy cow must breed every year, and at the same time must give a generous flow of milk for her owner's profit from nine to eleven months yearly. If her health is lowered thereby, or her life shortened, the question of profit must be considered, and she should yield her place to another when she fails as a profit producer.

HOW TO PREVENT RETENTION OF THE AFTERBIRTH.

There are certain points, however, in which the care of the cow should be considered. The pregnant cow should have exercise, and as regards both exercise and food, nothing is better than Nature's care, such as she gets while at pasture. She should not be given ice cold water to drink, or be exposed to violent excitement, such as being chased by dogs, riding, or being ridden by cows in heat, driven through narrow gateways, compelled to jump ditches or fences, hooked by other cattle, driven on icy or slippery ground, or being kicked or pounded by vicious attendants.

The diet should be good, clean, wholesome feed, such as will produce the greatest amount of strength and yield of milk both for the profit of the owner, and the nourishment of the foetus.

Much more is expected from the cow than any other domestic animal. In the breeding cow the value of the calf is the important consideration, and in the dairy cow the yield of milk. In either case the system is at all times under a continuous drain, furnishing blood, muscle, bone and sinews for the foetus, at the same time producing milk either for another calf by her side or for the profit of her owner.

THE COW A SURE PROFIT PRODUCER.

For this reason the cow should receive a reasonable amount of care and attention. She is the surest and most reliable of all farm profit producers, the one animal which

MUCH EXPECTED FROM THE COW.

the owner can bank upon to always produce her share of the income, provided she is given a reasonable amount of care, which consists in pure water, good, clean, wholesome food, and such ingredients as will regulate and control the nervous system, and stimulate the sluggish organs, of which a pregnant cow is usually the possessor. The sluggish organs are one of the greatest causes of the retention of the afterbirth, at the same time being a cause of constipation, which is only a symptom of the former.

NATURE'S DEMANDS.

To prevent the conditions which cause a cow to retain her afterbirth it is necessary to give such ingredients with the food as will have an affinity for the genital organs, and will enable them to perform each and every function that nature demands them to perform at the trying and critical period of calving, thereby enabling the cow to deliver herself of her calf without an unreasonable amount of exertion, and at a reasonable time after so doing to expel the afterbirth, without mechanical aid.

NATURE NEEDS ASSISTANCE.

So much is expected of the pregnant cow and the drain upon her system is so great that she should have proper feed and such ingredients added to it, as go to make up a perfect tonic for a pregnant animal.

It is impossible to care for cows as nature would care for them. To a certain extent they are deprived of proper laxative food and water when desired, exercise and sunlight, and such vegetable matter as nature requires to keep her genital organs in a strong, healthy condition. Being deprived of these, it is necessary that they be furnished with something to take their place, thus enabling the genital organs to perform each and every function required, such as contracting upon the matured calf, causing same to be born at the proper time, and expelling the afterbirth within a few hours afterwards, enabling the cow to come in heat at regular intervals, and to get with calf when bred.

BREEDING TONIC ESSENTIAL.

Breeding Tonic (see page 141), which is prepared especially for pregnant cows and heifers, should be fed to pregnant cows in small quantities in their feed during the period of pregnancy. This will keep the genital organs in a strong, healthy condition, thereby enabling them to give birth to strong, healthy calves in the proper manner, at the same time preventing retention of the afterbirth, catarrhal discharge, and barrenness.

By keeping the cow in a perfectly healthy condition, you enable her to ward off many diseases that might otherwise be contracted at this critical period. The feeding of this Breeding Tonic to pregnant cows strengthens and invigorates the muscles and all of their genital organs to such an extent that they have no trouble in calving and expelling the afterbirth as Nature intended.

NEVER USE FORCE IN REMOVING AN AFTERBIRTH.

An afterbirth that can be removed without force or injury to the cow is in a condition to come away of its own accord.

In removing the afterbirth by main force it is only the body of it and such buttons as are torn off that comes away, thus leaving many serious conditions. If the cotyledons or buttons are forcibly torn off, there is great danger of serious internal hemorrhage, as well as leaving a lot of clotted blood in the womb to decompose.

WHEN FORCE IS USED PARTS REMAIN.

The parts of the afterbirth attached to the buttons are retained and undergo putrefaction, and the buttons torn from the womb leave raw sores, which become infected

by the rotting, decomposing, irritating masses of foreign matter of which a large per cent. is absorbed by the system.

DANGER OF EXPELLING THE WOMB.

By using force the horns of the uterus may be turned inside out. This will cause the cow to strain violently, and by so doing the womb is often expelled, the result of which is serious and often fatal.

The displacement of either or both horns of the womb will cause the cow to strain for some time. This condition may, and often does, cause barrenness.

It is for this reason that barrenness often occurs when the afterbirth is forcibly removed.

DRAINAGE IMPORTANT.

The afterbirth should be allowed to remain until the buttons are ripe and in condition to release it by its own weight. The afterbirth in this way acts as a drainage by keeping the mouth of the womb open. This allows the contents of the womb to escape, instead of being retained by closure of the mouth of the womb.

DANGER OF POISON.

In this case, the animal would be compelled to absorb the poisonous matter, consisting of pieces of afterbirth which are always retained when force is used in removing it. Otherwise, the mouth of the womb would close and cause the womb to fill with matter, a portion of which is expelled, causing a catarrhal condition of the vagina, and acting as a hotbed for the germs of infection to propagate and multiply. This is liable to produce Barrenness and Infectious Abortion, and the cow by absorbing a large portion of this matter dries up on her milk, grows thin rapidly and is liable to become a victim of tuberculosis. If she contracts tuberculosis she may then expose the entire herd to the disease.

TREATMENT FOR RETENTION OF AFTERBIRTH.

To overcome this condition the cow should be given a loose box stall, dry, clean, and warm, with plenty of sunlight and good ventilation. A blanket may be placed on her if necessary. Plenty of warm drinks, good, clean, warm, sloppy, nourishing food, containing such ingredients as will loosen the bowels by toning them; and will tone and stimulate the genital organs so as to put the cotyledons or buttons in a perfectly healthy condition. This will enable the cow to naturally expel the afterbirth, which should be removed from the box stall as soon as expelled so as to prevent the cow from eating it.

The ingredients which will enable the genital organs to perform their functional duties and will enable a Cow to expel her afterbirth in a natural manner are contained in the Cow Cleaner (see page 142), which is prepared especially for and should be given in all cases of retained afterbirth.

PREVENT BLOOD POISONING.

In retention of the afterbirth it is very essential to prevent putrefaction, decomposition, and absorption of the decomposing mass; also to prevent and destroy germs, soothe the irritated parts, prevent inflammation and hasten the expulsion of the afterbirth. It is very necessary to use such ingredients in the form of a solution for washing out the vagina while the afterbirth is retained, and even after the expulsion of same and until all discharge ceases, as will accomplish all this. At the same time the solution must be harmless in case the animal absorbs part of it, which she is very liable to do. Many a valuable cow has been ruined or destroyed by absorbing powerful poisonous solutions used for washing out the genital organs.

To avoid this danger, use Antisepto (see page 140) for preparing an Antiseptic solution which is to be injected with a hose and funnel into the vagina of all cows afflicted with retention of afterbirth. This Antisepto is an especially prepared remedy for washing the genital organs of cattle.

Antisepto is invaluable for this purpose as it contains ingredients that prevent and destroy germs, at the same time is healing and soothing to the delicate organs of the cow and is harmless if absorbed.

ABSCESS.

An Abscess may be detected, if situated externally, by heat, pain, redness, and swelling in the early stage.

TREATMENT.

The opening of an abscess should be encouraged by poulticing with Antiseptic Poultice (see page 148). However, if lanced, care should be taken not to open too soon. The time to open an abscess is just before it is ready to break.

The cavity should be kept open and syringed out with a solution of Germ Killer once or twice daily, then inject the Healing Oil and Healing Lotion, alternately, as directed.

ANTHRAX.

The animal without having shown any signs of disease suddenly drops down in the pasture and dies in convulsions; or an animal apparently well at night, is found dead in the morning. They stop feeding or ruminating a few hours before death. Chills and fever set in. The temperature runs high—106 to 107.

ANTHRAX TREATMENT.

Treatment is useless. The only thing to do is to prevent the balance of the herd from getting it. This is done by vaccination. Injecting vaccine under the skin with a syringe, the results of which are very good. Write for particulars.

APPETITE DEPRAVED.

Cattle thus afflicted have a strong desire to lick the walls, eat dirt and filth, that a healthy animal would have no desire for.

TREATMENT.

Give good, clean, wholesome feed, and give Cow Tonic (see page 146), according to directions. Medicate all salt with CONDENSED STOCK FOOD.

BARRENESS

Barrenness, sterility, or failure to breed in cows and heifers, is due either to imperfect, unnatural, or diseased genital organs.

IMPERFECTION OF THE GENITAL ORGANS.

This is one of the causes of barrenness, and may be due to an undeveloped womb or imperfect ovaries.

It is usually the case that when a twin heifer and bull calf are born, and the bull proves to be fruitful, the heifer is barren, and vice versa. If this be the case with the heifer, she is not liable to come in heat at all, and is very apt to take on a very masculine appearance; more often having the appearance of a steer than a bull. Even after she has arrived at breeding age, the breeding organs are undeveloped and there is no sign of an udder, this being proof of imperfect genital organs.

An animal thus afflicted can never be made to breed.

UNNATURAL CONDITION OF THE ORGANS.

An unnatural, swollen and inflamed condition of the genital organs may be brought

on by a retention of the afterbirth, this being allowed to be retained in a decomposing condition until it rots away, leaving the mouth of the womb irritated, scalded and sore, so that when it does close, it heals closed so firmly that it cannot be opened without mechanical aid in the form of a dilator.

DISEASED ORGANS.

The genital organs may become diseased from several causes, chief of which is neglect, in cases of retained afterbirth, the same becoming decomposed and converted into matter, causing a catarrhal condition of the mucous membrane of the womb and vagina.

If a cow be served while in this condition, the semen of the bull will be destroyed by this corrosive discharge, thus preventing conception.

DISEASED BULL MAY CAUSE BARRENNESS.

If a healthy cow be bred to a bull infected with the germs of abortion, she is very liable to become infected. This infection will set up a catarrhal condition of the womb and vagina, and irritate the mouth and neck of the womb to such an extent as to cause same to become sore, and when this sore heals, the scar tissue and cartilage formations are so firm and rigid that they will not open without mechanical aid.

TUMOROUS GROWTH MAY CAUSE BARRENNESS.

A slow catarrhal condition of the womb oftentimes causes a gristly, sticky, pliable formation of mucous, called Neoplasm. This renders conception more or less difficult. The formation of small growths, such as tumors, which are liable to form on any part of the genital organs, but are more apt to be at the mouth or in the neck of the womb, often prevent conception.

BARRENNESS MAY BE TRANSMITTED.

A barren cow afflicted with a catarrhal discharge of the genital organs may be bred to a perfectly healthy bull; the bull then becoming infected. He in turn may be bred to a perfectly healthy cow, which has never been afflicted with barrenness, and she may in this way become infected and rendered barren.

HOW TO KNOW IT.

A reasonably healthy cow or heifer that may be bred once or twice at different periods of heat to a reasonably healthy bull, and fails to get with calf, should be looked upon as barren, unless it may be the fault of the bull, which is very seldom the case. This can be determined very easily by breeding the bull to several of the cows and watching the results. If any of them conceive, that proves that the bull is not at fault.

In case a cow does not conceive it is not advisable to take her to outside bulls, as by so doing chances are being taken of introducing into your herd diseases that may prove more serious than barrenness.

SUSPICIOUS SIGNS OF BARRENNESS.

A cow coming in heat at unreasonable periods and frequent intervals, such as the day following expulsion of the foetus, or the birth of a calf, is another sign of barrenness.

The mere fact of a cow coming in heat at any time after she is bred should be looked upon with suspicion, and should receive proper attention as early as possible, for the reason that the longer the cow remains barren the more difficult it will be to get her with calf.

ALL HEALTHY COWS SHOULD BREED.

All reasonably healthy cows and heifers should be made to breed.

This can be done with little trouble and slight expense if given proper attention. Many a valuable cow and heifer have been sacrificed or disposed of for the reason that they were not made to breed. This may have been due to a lack of proper information pertaining to this subject.

It is very important that a cow in order to conceive be in a reasonably healthy condition. The genital organs should be in a condition to perform their functional duties as nature would have them. A lack of secretion, or an excess of secretion, renders conception difficult. A lack of ambition or vigor, or an over amount of same, renders conception difficult, a lack or an excess of either being an unnatural condition of the genital organs. This should be overcome and controlled by the use of the Breeding Tonic, or ingredients that will regulate and control the genital organs.

First of all, the cow or heifer should be in a reasonably healthy condition. She should not be too thin (emaciated), thus lacking the strength which nature demands; neither should she be too fat (plethoric), or over-stimulated, for in this condition conception would be difficult.

FAVORABLE SIGNS FOR BREEDING.

A cow before breeding should be carefully noticed, to make sure that there is no unnatural discharge from the vulva. A natural discharge would be a discharge of mucous that has every appearance of the white of an egg, and at the period of heat usually contains a little blood.

UNFAVORABLE CONDITIONS FOR BREEDING AND DANGER OF INFECTION.

An unnatural discharge from the vulva may be a discharge of mucous streaked with or containing drops of matter or pus, or a discharge that is all matter or pus, very sticky in nature, adhering to the roots of the tail, at the same time having a very disagreeable odor. This discharge indicates that the organs are very much diseased.

SIGN OF ABORTION.

Another discharge which is often noticed, and which often follows abortion, is a brownish red, or chocolate-colored discharge, very profuse, having a sweetish, sickening odor. These discharges often stimulate and irritate the genital organs of a cow or heifer, thus causing them to come in heat at irregular periods, such as a day or so after expulsion of the fetus or calf, and if a cow or heifer in such condition be bred to a perfectly healthy bull it may not only infect him and render him in a condition to infect other cows, but may also produce an acute irritation and inflammation, which may leave his organ in such a sore, irritated condition that he will have no desire to serve a cow until he has been treated with an antiseptic solution.

BULL SHOULD HAVE ATTENTION.

The solution, which should be injected into the sheath of the bull, should destroy germs and soothe and heal the irritated and inflamed mucous membrane.

This will enable him to serve a cow when called upon to do so, at the same time preventing him from infecting cows that he may be bred to, also preventing him from becoming infected.

TREATMENT OF BARRENNESS.

All barren cows and heifers should be given Breeding Tonic in their feed, and their genital organs should be washed out with the Antisepto Solution.

Barrenness is due either to a diseased or weakened condition of the genital organs. It is unreasonable to expect a cow or heifer to breed until this condition is overcome.

The Breeding Tonic contains such ingredients as are necessary to tone, strengthen and regulate the genital organs, in this manner putting them in a strong, healthy, breeding condition (see page 141).

ANTISEPTIC SOLUTION IMPORTANT.

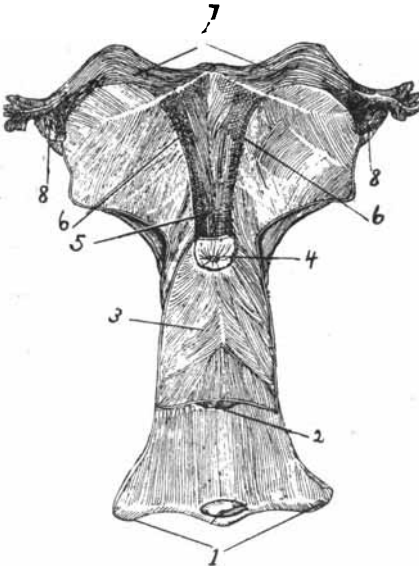
The genital organs of all barren cows and heifers should be washed out with this solution until they conceive, whether they have a discharge or not.

This solution will prevent and overcome the acid secretions which kill the semen of the bull and prevent the cow from conceiving.

It will also prevent and destroy germs, soothe and heal all inflamed mucous membranes, thus preventing the formation of germs and the spread of the disease.

If a cow or heifer be cared for according to the demands of nature and fails to get with calf after being bred a reasonable number of times, she should then be classed as a barren animal. Upon examination of the neck of the womb it is usually found to

be tightly closed. The neck of the womb contains three cartilage rings, which in this closed condition are found to be much contracted. This should be overcome by the use of a womb dilator.



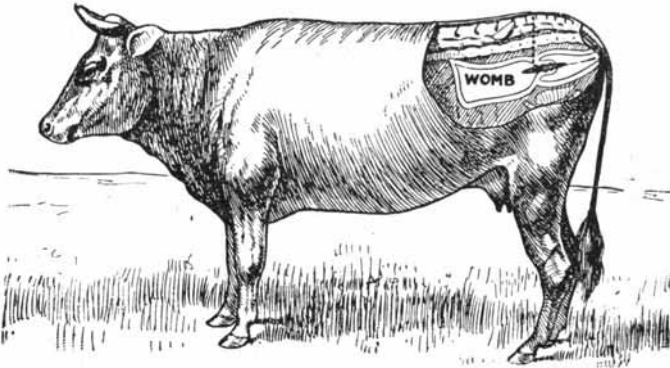
WOMB OF BARREN COW.

1. Vulva (external parts).
2. Urethra (opening into bladder).
3. Vagina (canal leading from vulva to womb).
4. Os (mouth of womb).
5. Neck of uterus (or womb).
6. Body of uterus (or womb).
7. Horn of uterus (or womb).
8. Ovaries (organ which produces ovum).

in this manner overcoming barrenness. After the third dilator has been used the cow should be bred at several different periods of heat, in the natural way, without any artificial means.

ARTIFICIAL MEANS NECESSARY.

The use of the Womb Dilators (see page 166) overcome this unnatural diseased condition by being placed as far into the neck of the womb as possible. These dilators contain a preparation which, when it comes in contact with the neck of the womb or cartilage rings, is absorbed, the result being that the neck of the womb and cartilage rings relax their rigid and contracted condition. The dilator at the same time absorbs moisture, and slowly but firmly expands, and by so doing dilates the neck of the womb, rendering conception easy. In case a cow or heifer does not conceive after the use of one dilator, a second should be used, as perhaps the dilation of the second or third ring had not been accomplished, and in case they do not conceive after the use of the second dilator, a third should be used, as this will open the third and last ring,

DILATOR

The Above Sketch Shows Womb Dilator in Position.

DIRECTIONS FOR USING WOMB DILATOR.

Apply lard or vaseline to the hand, and introduce it into the vagina of the cow when she is in heat. Dilate the neck of the womb as much as possible with the Womb Sound, then withdraw the hand and introduce the Womb Dilator into the vagina and insert it into the neck of the womb; allow Dilator to remain there for eight or ten hours; then remove it by pulling on the attached cord. After removing Dilator the cow should be bred at once, and kept from the balance of the herd for twenty-four hours.

The Womb Dilator can be inserted by anyone; no professional skill required.

BLOATING.

Bloating may be known by a swelling of the left flank. This swelling rises above the level of the backbone, and when tapped with the finger sounds like a drum.

There is always great danger of smothering. For this reason a Trocar (see illustration, page 166) should always be kept on hand.

TREATMENT.

The animal should be tied up and compelled to stand on a box or platform which will elevate front parts from six to twelve inches; give Laxotonic (see page 145) as directed, and place a gag in the mouth. In very severe cases they should be tapped by the use of a Trocar. The point of this operation is on the left side, just midway between the point of the hip and the last rib. Point the Trocar inward and downward. Give an injection of warm water per rectum (2 to 4 quarts). Dip Trocar in Germ Killer solution before tapping.

TO PREVENT BLOATING.

One box of Condensed Stock Food (see page 163) should be mixed thoroughly with 25 pounds of salt and put in troughs in a sheltered place where the cows can have free access to it in passing to and from the pasture; this will not only prevent them from bloating, but will keep them in a healthy condition.

BLACK LEG.

Black Leg is a disease that very much resembles Anthrax. The symptoms are very much the same in both cases, excepting that the animal may live a few days longer with Anthrax than with Black Leg.

The most important characteristic of this disease is the appearance of a tumor or swelling under the skin of the affected animal a few hours after the setting in of the disease.

The tumor may be located on the thighs, neck, shoulder, breast, hock joints, flanks or rump. By examining or feeling of the parts a peculiar crackling sound is heard under the skin. This is due to a collection of gas formed by the germs as they multiply. At this stage the skin becomes dry and cool to the touch in the center of the tumor. If the swelling is lanced a frothy, dark-red, rather disagreeable smelling fluid is discharged. The animal manifests little or no pain during the operation.

TREATMENT.

The treatment of this disease is very unsatisfactory. In fact, it is useless to undertake it. A prevention of the disease is the only wise thing to undertake. This is to render the balance of the herd immune by vaccination with Black Leg Vaccine.

In a case of this kind write us for further particulars.

BLOOD POISONING.

This is a condition resulting from the absorption into the system of putrid, poisonous matter or pus, such as follows retention of the afterbirth in animals.

There will be a high fever, rapid but weak pulse and fast breathing. Loss of appetite, starring coat and delirium in the last stages of the disease.

TREATMENT.

Discover the cause if possible, and if it is an abscess open it and wash it out with a solution of Germ Killer (see page 147). Then inject Healing Oil. If it is a sore, wash it with Germ Killer solution and apply Healing Oil. Often internal treatment is very important and consists in reducing the fever and keeping up the action of the heart. This is done by the Fever Paste (see page 000); give every three hours with two ounces of *good* whisky.

BOILS.

Boils in cattle usually appear about the size of a hen's egg.

The abscess begins as a small round bunch and gradually increases in size.

TREATMENT.

Antiseptic poulticing (see page 148) should be done; apply Healing Oil twice daily until the core is formed, when the abscess should be opened and syringed out once or twice daily with the Healing Oil.

BOWEL STOPPAGE.

(See Paralysis of Bowels, page 62.)

BRONCHITIS.

Bronchitis is an inflammation of the mucous membrane of the Bronchial tubes. It is commonly known as catching cold, but it is more often brought on by foreign bodies such as medicine, gruels, salts, and oils being given to cattle as a drench. It is for this reason that cattle should never be drenched.

In Bronchitis there is usually a loss of appetite, a rise of temperature (generally 104 to 105), and the breathing is incomplete, short, quick and painful. The pulse is increased and often a painful cough is present.

TREATMENT.

The animals should be placed in a light, well-ventilated box-stall, given feed of a laxative nature, such as grass in season and bran mashes, which latter should be made out of linseed tea. Give the animal plenty of water to drink.

The fever should be reduced with the Fever Paste (see page 152) and the bowels kept open with Laxotonic, while warm water injections per rectum should be given by means of a hose and funnel. After this has been accomplished, the cow may be give Cow Tonic, and well cared for until fully recovered.

CALF CHOLERA.

This is a catarrhal condition of the mucous membrane of the bowels. It is either a disturbance of the digestive organs or a symptom of some other trouble.

As a disease itself, it is an unnaturally increased action of the bowels, and at first may be nothing more than an attempt of Nature to relieve the stomach and bowels of their undigested, fermenting, offensive and irritating contents, which is marked by a thin, profuse watery discharge from them. This indicates an irritated and over-stimulated condition of the excreting glands of the bowels, causing an unnatural increased amount of liquid to be emptied into them, thereby mixing with the undigested fermenting contents, which is irregularly and rapidly expelled from the bowels. Such a condition shows a catarrhal and over-stimulated condition of the mucous membrane of the digestive organs, which are very sensitive to irritating or soothing ingredients taken into the system.

SCOURS DUE TO INDIGESTION.

The surroundings of the calf have much to do with the cause of this disease. Calves kept indoors suffer to a greater extent than those running in the open air and having the strengthening influences of sunshine, pure air and exercise. Closely crowded, filthy and bad smelling buildings are important factors in causing the disease.

All these causes tend toward reducing the activity of the digestive organs. As scours in calves is the common result of indigestion, it is therefore necessary that the digestive organs be kept in good, strong, healthy condition.

INDIGESTION DUE TO MANY CAUSES.

Indigestion may occur from many different causes, as costiveness, a too liberal supply of milk; too rich milk; the furnishing of the milk of a cow long after calving to a very young calf; allowing the calf to suck the first milk of a cow that has been hunted, driven by road, shipped by rail, or otherwise violently excited; allowing the calf too long time between meals, so that impelled by hunger it quickly overloads and clogs the stomach; feeding from a pail milk that has been held over in unwashed (unscalded) buckets, so that it is fermented and spoiled; feeding the milk of cows kept on unwholesome food; keeping the calves in cold, damp, dark, filthy, or bad smelling pens. The licking of hair from themselves or others and its formation into balls in the stomach will cause indigestion in the calf.

SIMPLE SCOURS DEVELOP INTO INFECTIOUS DISEASES.

The above are causes of simple diarrhœa or scours. This form in its early stages is not infectious but is due to indigestion. As indigestion persists, however, the fermentations going on in the undigested masses become steadily more complicated and active, and what was at first the mere result of irritation or suspended digestion, comes to be a genuine infectious disease, in which the organized ferments (bacteria or germs) propagate, multiply and produce an infectious disease which is commonly called scours in calves, but properly called Calf Cholera. It is for this reason that it is transmitted and carried from one animal to another, thus causing untold losses to dairyman and breeder.

DISEASE APPEARS SUDDENLY.

Scours in calves or Calf Cholera in many instances differs from Diarrhœa in the adults and has special features of its own, taking the form of infectious intestinal catarrh, which is far more serious than the ordinary diarrhœa of the full grown animal. This disease generally appears suddenly. A perfectly healthy calf may be seized all at once, apparently, without any change in food or care. The symptoms of this infantile diarrhœa usually appear during the first two or three weeks of life. In many cases it occurs within a few hours after the animal is born, and the calf may die within from twenty-four to forty-eight hours.

CALF MAY CONTAIN GERMS AT BIRTH.

It is common for the calf to be afflicted with scours immediately at birth, even before it has had time to suck or take any nourishment whatever.

The faeces or manure are very thin and watery. They have a sour, disagreeable odor, and are usually very light colored. The evacuations are frequent and expelled with force.

PROMPT ATTENTION NECESSARY.

The first indication of the presence of the disease is usually the soiled condition of the tail, loss of appetite, sunken eyes, sometimes the saliva flowing from the mouth, no attempt being made to swallow it. They have a staring coat, grow thin and lose strength rapidly. Death usually follows in from twelve to twenty-four hours unless prompt measures are taken to check the disease. If allowed to continue for any length of time the scouring will be accompanied by congestion and ulceration of the intestinal mucous membrane caused by the irritating secretions. As a result of this disease partial or total blindness is sometimes brought on.

HOW TO PREVENT CALF CHOLERA.

To prevent scours in calves proper care should be given to the mother while she is pregnant, that she may be able to give birth to a healthy calf. As it is a germ disease, it is very important that the calf has none of these germs in its system before it is born. Calves from mothers which are affected with the disease of abortion are most apt to die of scours. It is therefore very necessary that the cows be kept free from the disease. Calves born afflicted with the germs of this disease in their system are in a position to spread the disease to other calves that they may come in contact with in the same herd, or if shipped to other herds. This is another proof of its infectious nature.

TO PREVENT LOSS.

After removing the afflicted calf from the rest of the calves the stable should be thoroughly disinfected with Disinfectall (see page 164), and the balance of the calves should be given Calf Cholera Remedy once daily with their regular feed, thereby keeping their digestive organs in proper condition so that they may digest and assimilate their food and thus escape the disease entirely.

TO CARE FOR CALF PROPERLY.

The most important factor in the raising of cattle is their care while young.

Do not think that you are doing the correct thing if you are only managing to keep the life in a calf until it is three months old, and then have it get fat on grass before the winter comes. If you do this you are apt to have a lot of "Scraws" with their digestive organs destroyed and which will never make strong, healthy steers or cows and will not be good for either dairy, beef or breeding animals.

PROFIT IN PROPER CARE OF CALVES.

It is but little more expense and care to give your calves the attention and food necessary to keep them free from scours and other diseases and start them off with digestive organs in good condition and a strong constitution. This can be done by keeping on hand a package of Calf Cholera Remedy and feeding it to your calves from the time they are dropped until they are fifteen days old, which will carry them past the time when they are most subject to the disease of calf cholera or scours. By doing this you will lay the foundation of a strong constitution upon which you can build a strong, healthy animal, and one which with proper care will make you money in whatever line it is put, whether beef or breeding.

CALVES CONTRACT CHOLERA.

A calf that is not infected with the germs of Cholera at birth may contract them later on from other causes, such as indigestion, close stabling and coming in contact with calves already thus infected. The germs of Cholera when once introduced into the system propagate and multiply so rapidly that unless measures are immediately taken to destroy them and stop their ravages in the system death will ensue in a short time.

PROPER FOOD SHOULD BE FURNISHED.

The calf should receive proper food, free from fermentation, at regular intervals and in reasonable amounts. To this food should be added a good, reliable Calf Cholera Remedy that will aid digestion and prevent fermentation, thereby preventing the formation of germs and causing a proper digestion and assimilation of the food.

This is an insurance against death by scours or calf cholera.

TREATMENT OF CALF CHOLERA.

While it is much easier to prevent a disease than it is to cure it, still it is very important to know how to properly care for an animal after it is taken sick. This is certainly the case with a calf which has Calf Cholera or Scours, for if it is not taken in hand promptly it will probably be too late to do anything for it, as the disease is apt to prove fatal in a short time.

When it is discovered that a calf has diarrhœa or scours it should be placed in a clean, warm, loose, well disinfected and ventilated stall, free from cold drafts but admitting plenty of sunlight. It should receive a mild laxative to rid the bowels of the irritating contents, after which it should be given Calf Cholera Remedy (see page 143). This remedy will arrest fermentation, mildly check the secretions, aid digestion and assimilation, thereby destroying and preventing the formation of germs, thus causing the bowels to be soothed and healed, enabling the calf to pass the fœces in a natural form. Roots of tail and hindquarters should be washed once daily with Solution of Disinfectall.

CALF INDIGESTION.

HOW TO KNOW IT.

The symptoms of calf indigestion are dullness, belching of gas from the stomach, sour breath, entire loss of appetite, colicky pains, and at first constipation, which later on develops into diarrhœa, the fœces being very offensive.

If constipation be present at the time of treatment the calf should be given small doses of Laxotonic (see page 145), but if diarrhœa be present at the time of treatment small doses of Calf Cholera Remedy should be given.

CONSTIPATION IN CALVES.

Constipation is more often noticed in newly born calves. There may be a continual

switching of the tail, uneasiness and an effort to empty the bowels. If nature fails to do its part, the treatment is to give on the tongue a small dose of castor oil (from one to three ounces.) And a pint of warm water injection should also be given with a hose and funnel per rectum.

The oil and injection may be repeated once daily until the desired results are obtained.

CALVING.

The required time of gestation, or the period in which a cow carries her calf, is nine months, at which time special attention should be given the cow. Place her in a loose box stall with plenty of bedding; give her feed of a laxative nature; the drinking water should have the chill taken from it, and her bowels should be kept in a natural condition by giving her Laxotonic (see page 145).

After the labor pains have appeared it would be well to keep watch of her, and if she does not deliver her calf within a reasonable length of time—say, one hour—it would be advisable to make an examination. Upon doing so, if the calf be in a natural position, the nose and front feet are the first to be felt. If such be the case, the attendant may assist the cow in delivering her calf by pulling on the front feet. Any other position would indicate an unnatural condition of calving. When calf is born the navel cord should be tied two inches from the body with a string soaked in Umbilicure (see page 151); the navel cord should then be cut about four inches from the body, Umbilicure should be applied three times daily to the navel cord until it dries up and drops off. This will prevent calf from becoming infected with navel diseases. The calf should be allowed to remain with the cow three or four days. Important in connection with this article is the article on Navel Diseases in Calves (see page 61).

CLEANING.

A cow should clean within three hours after calving. In case she fails to do so she should receive plenty of hot mashes, boiled oats, warm water, and given the Cow Cleaner (see page 142). The vagina should be washed out with Antiseptic Solution and the cow tied up with a halter to prevent eating the afterbirth. After she has cleaned and is through discharging she may be placed with the balance of the herd and her milk will be ready for use. (See Retention of the Afterbirth, page 40.)

CASTING THE WITHERS—OR EXPULSION OF THE WOMB.

This is a weakness which sometimes follows calving. The first sign is that of straining, and later the presence of part or the whole of the womb. In this case the womb should be placed upon a blanket; if the cow is lying down, which she usually is, wash off thoroughly with the Antiseptic Solution; after doing this the womb may be done up in a sheet dipped in the Antiseptic Solution and held up by an attendant, while the operator carefully pushes the womb back into its place. It must not only be placed back, but the full length of the arm must be inserted so that it turns the horns of the womb back into the natural position, and unless this is done the cow will continue to strain.

To prevent the cow from expelling it again she should be placed upon a plank door four feet wide and six feet long, with laths nailed across to prevent her feet from slipping when she stands upon it. The end of the door on which the hind parts are should be raised from six to eighteen inches, and she should be compelled to either lie down or stand up on this door until all straining ceases and she fully recovers, usually requiring from one to three days. During this time her bowels should be kept loose with Laxotonic and her appetite kept up with Cow Tonic.

CASTRATING.

In castrating calves or bulls the scrotum, or bag, should be washed with the Germ Killer solution. After the operation the scrotum should be well oiled with the Healing Oil. (See page 156.)

Calves should be castrated at the age of from one to three weeks. Bulls may be castrated at any age.

CATARRHAL FEVER OR PINK EYE.

Catarrhal Fever is usually known as Pink Eye, Distemper and many other diseases of a catarrhal nature. This disease involves the respiratory or breathing organs, the alimentary canal, or digestive organs. The head, eyes and genital organs are frequently affected. This disease usually comes on with a chill, followed by a fever. The head droops, the skin is hot and dry and the coat staring, frequently very dull in appearance. The secretion of milk usually stops. Loss of appetite and loss of flesh are invariably noticed, and sometimes the eyes become blue, so that the animal may be hardly able to see. In other cases the cow becomes totally blind unless prompt and proper treatment is given. Tears may be noticed running down the face, the lids are swollen and inflamed; sunlight is painful to animals thus afflicted, causing them to close their eyes and keep them closed continuously.

TREATMENT.

The eyes should be washed with the Antiseptic Solution, full strength, and the Eye Lotion (see page 149) should be injected into the eyes with a small, hard rubber syringe having a soft rubber nozzle. The temperature should be taken, and if found to be high the Fever Paste should be given, and the Cow Tonic should be given during the entire treatment. The stable in which the animal is kept should be thoroughly disinfected with Disinfectall.

CHOKING.

This means the lodgment of a foreign obstacle in the swallowing tube or gullet. It is known by slobbering, distressed breathing and an accumulation of gas, which may be noticed in the left side or paunch.

TREATMENT.

Stand the cow with her head down hill, pressing the head downward as much as possible, while the attendant squeezes as much saliva out of the gullet as possible. Then allow her to raise her head and give her half a dose of oil (half pint), giving but one swallow at a time. If she is not relieved in from ten to thirty minutes, a one-inch rubber hose five or six feet long may be passed gently down the gullet. This will force the obstacle into the stomach, at the same time allowing the gas to escape. On account of the extensive stretching of the bowels due to the collection of gas, the Laxotonic should be given to overcome paralysis of the bowels, which usually follows.

COLD.

A cow may take cold at any time, and it is apt to affect any part of the body, but it usually affects the head, throat or lungs.

TREATMENT.

If it affects the throat or lungs apply White Liniment (see page 150) to the throat or lungs, or both, and give the Fever Paste. Keep the bowels open with Laxotonic.

COLIC OR CRAMP.

This is usually brought on by drinking cold water or eating indigestible food. The animal will be noticed to be uneasy, getting up and lying down frequently, and showing pain.

TREATMENT.

Give a dose of Laxotonic. (See medicine listed in back of book.)

CONSTIPATION OR STOPPAGE OF THE BOWELS IN CATTLE.

This is one of the most common ailments that cattle are subject to; at the same time more cattle die from this cause than any other, for the simple reason that constipation is due to paralysis of the bowels.

Constipation is to be regarded as the sign of another disease, rather than a disease of itself. It occurs in almost all general fevers.

In order to overcome constipation the treatment must be applied to overcome the ailment which causes it. Seventy-five per cent of the cases of constipation are due to partial paralysis of the bowels. In this case the bowels require a laxative and tonic, and not a physic, for if the bowels are paralyzed a physic will have a tendency to cause irritation, congestion and inflammation. For this reason it is dangerous to give a cow salts or oil.

TREATMENT.

A cow thus afflicted should be given plenty of drinking water with the chill taken from it, bran mashes made from flaxseed tea, and give Laxotonic (see page 145) according to directions. Also inject several quarts of warm water once or twice daily per rectum by the use of a hose and funnel, and give the animal a reasonable amount of exercise.

COW-POX.

This is a disease communicable from one cow to another. This disease is ushered in by a slight fever, which, however, is usually overlooked, and the first sign is tenderness of the teats. On examination they will be found to be redder and hotter than normal, and at the end of two or three days there appear knobs like little peas, pale red in color, and they gradually grow larger, so that at the end of a week they may be an inch in diameter. The yield of milk is diminished. From the seventh to the tenth day the eruptions form into blisters with depressions in the center and raised margins. The blister is, however, divided into several pockets, and in order to allow all the contents to escape each pocket has to be opened separately. If the pocket forms on the surface, where there is a thick coat of hair, it does not form a blister, but oozes out through the skin in amber or straw-colored masses. In a few days after this collection forms it turns yellow and the scab dries up and falls off and leaves a distinct pit in the skin. The animal suffers intense agony while being milked, as the scabs are cracked and broken by the hands of the milker.

TREATMENT.

In severe case give Cow Tonic internally (see page 146). Badger Balm should be applied to all affected parts of teats and udder.

DEHORNING.

As dehorning cattle is rather a cruel but necessary operation, it is advisable to prevent the horns from growing rather than removing them after they have once grown.

To prevent the horns from growing on calves it is necessary to apply a dehorning remedy when the calves are from one to ten days old.

The operation is performed as follows: The little animal is caught and gently laid over on its side, in which position it is easily held by one assistant, while the operator clips the hair off of the little knobs where the horns appear. He then applies the remedy thoroughly to a spot not to exceed the size of a quarter of a dollar. The calf is then turned over and the other side treated in like manner. (See page 159.)

If this treatment is properly applied, no horns will ever make their appearance. All cattle should be dehorned, chiefly to protect them from each other. If unfortunately an animal has not been dehorned while still a calf, the dehorning clipper may be resorted to. This operation is performed by placing the animal in a stanchion and fastening the head tightly, then applying the dehorning shears, pretty well down onto the head so as to be sure and remove enough of the horn to prevent any further growth. With one sweep of the dehorning shears the horn should be removed. Apply a little Healing Oil after the operation to prevent any bad results from following. Cool weather should be selected for this operation.

DIARRHOEA IN CATTLE.

Diarrhoea in cattle is an indication of indigestion. It comes on at all seasons of the year, but it is more liable to come on during the grass season, and is more prevalent during the wet season rather than the dry, on account of the heavy growth of grass, this being hard to digest.

TREATMENT.

The animal should receive a little ground feed two or three times daily, in which should be given moderate doses of Cow Tonic (see page 146). The drinking water should be clear and pure, and given warm and sparingly.

EYE DISEASE.

Sore eyes may be brought on from many different causes. It may be due to injuries or to a catarrhal infection. When due to the latter, the whole herd may be thus afflicted and oftentimes are.

TREATMENT.

A sore eye due to an injury should be bathed three times daily with a quart of Antiseptic Solution (see page 140), full strength, and followed with Eye Lotion injected after each bath. This same treatment should be used when sore eyes are due to a catarrhal infection or Pink Eye. And in addition to this treatment the cattle should have free access to a liberal amount of salt, in which should be mixed Condensed Stock Food.

If both eyes of the animal be affected and it be difficult for them to see, it is advisable to keep them in a dark stable during the day and let them graze at night, on account of the strong sunlight being painful to the eyes.

FEVERS.

In order to detect as to whether an animal has a fever or not, it is always advisable to use a Fever Thermometer, and if the temperature be higher than normal it indicates a fever. It may be due to many causes, such as inflammation of the lungs, inflammation of the throat, inflammation of the udder, etc., etc. However, the fever should be controlled and reduced by giving the Fever Paste according to directions and the bowels should be kept loose with the Laxotonic (per mouth) and injections (per rectum) of from two to four quarts of warm water once or twice daily; also apply the White Liniment to the inflamed parts, such as the throat or lungs, or both.

Every stock raiser should own a Veterinary Thermometer, oftentimes saving him considerable expense. (See page 166.)

FISTULAS.

A fistula is a pus cavity, containing matter, and is commonly known as a running sore. It may appear on any part of the body, limbs or feet.

TREATMENT.

Open the parts so as to allow all the matter to flow freely; wash out the cavity once daily with a solution of Germ Killer (one ounce to a gallon of warm water), and follow by injecting a quantity of Healing Oil and Lotion, alternately, according to directions and according to the size of the cavity. Give Cow Tonic internally according to directions to tone up the system. (See remedy list in back part of book.)

FOOT DISEASE OR SORE FEET IN CATTLE.

Sore feet in cattle may be due to several causes, but the one kind which the ordinary dairyman or breeder has to contend with are sore feet due to either standing on cement floors or running in wet, boggy pastures. The feet usually crack between the claws, swell and become inflamed. In either case the treatment is the same, and consists in washing the sore or inflamed feet with a solution of the Germ Killer (one ounce to a gallon of water), and applying both Healing Lotion and Healing Oil, alternately, to all open sores or inflamed parts. (See remedy list in back part of book.) If a growth of proud flesh appears between the hoofs or on any part of the limb, it should be overcome by frequent use of the Healing Lotion, and the inflamed or sore feet should be placed in antiseptic poultices, once daily, until all inflammation and lameness has been overcome. Use a Poultice Boot.

HOW TO MAKE A POULTICE BOOT.

Take a round piece of sole leather six or seven inches in diameter and as thick as you wish it; then stitch a heavy canvas to the edges of this sole leather and have it run up about twelve inches.

HOW TO APPLY THE POULTICE.

Put enough Antiseptic Poultice into the boot to cover the foot nicely, then fasten the canvas or boot on by the use of strap instead of strings, as strings cut in too much. The Cow Tonic should be given as directed to tone up the system.

FOUNDER.

Founder is not of frequent occurrence in cattle, but it does occur to overfed or show cattle. It resembles a stiffness, but upon feeling of the hoofs they will be noticed to be hotter than usual; lying down considerably is another symptom.

TREATMENT.

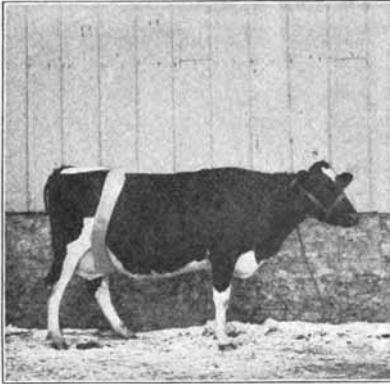
If this be noticed in the early state it is advisable to bleed the animal by drawing from four to six quarts of blood, according to the size of the animal. The bowels should be loosened up with Laxotonic (see page 145) (per mouth), and warm water injections (per rectum), and the Fever Paste given to reduce the fever. The feet should be poulticed with Antiseptic Poultice, which should be changed once daily. (Use the Poultice Boot for applying poultice.) The animal should be fed sparingly with food of a laxative nature. Exercise should be given as soon as the animal is able to take it.

FROST BITES.

This should never occur, but sometimes it is unavoidable, and the treatment is to wash the parts thoroughly with a solution of Germ Killer and apply the Badger Balm (see page 144) to the frozen parts.

GARGET—CAKED UDDER OR INFECTIOUS MAMMITIS.

Garget or caked udder is a very common but annoying disease, and is due to many causes, the most common being a condition of the blood, and for this reason Cow Tonic (see page 146) should be given freely according to directions. The udder should be rubbed twice daily with an application of Badger Balm or White Liniment, thoroughly rubbed in. In severe cases apply an Antiseptic Poultice by placing a band around the cow's body and udder. Keep the animal well bedded to prevent the udder coming in contact with any dampness. Keep the bowels open by giving warm water injections (per rectum). If the caked udder takes on an infectious form, then the milkers should wash their hands in a solution of Antisepto after milking each cow, as this will prevent the spread of the disease. Stables should be disinfected with a good germ destroyer, such as Disinfectall.



How to Bandage Cow Suffering from Caked Udder.

GENITAL DISEASE.

As the genital organ diseases are usually due to retention of the afterbirth, this subject is fully described and the treatment fully given on page 38, under subject of Retained Afterbirth.

GESTATION PERIOD.

As it is pretty well known by most people that the gestation period of a cow is nine months, or 280 to 285 days, it will be needless for much to be said on this subject, as gestation table may be seen on page 22. (A calf born on the 210th day may live; also 336th.) A cow failing to carry her calf to the period of 280 days may be considered an abortion, and this subject is thoroughly described on page 36.

GONORRHOEA IN BULLS.

Gonorrhœa is an infectious catarrhal discharge of the genital organs. It is brought on by coming in contact with living germs, such as serving a cow afflicted with infectious abortion, or one that has retained the afterbirth, and comes in heat while she is still discharging.

TREATMENT.

All herd bulls should have the sheath washed out after each service with a solution of Antiseptic (see page 140) to prevent becoming affected and contracting gonorrhœa. It is due to this disease that infectious abortion is spread.

GRASS STAGGERS.

Grass Stagers is a disease brought on by overloading the stomach with grass. As soon as the stomach becomes overloaded, indigestion sets in, which interferes with the brain, causing the animal to walk with an unnatural and unsteady gait, usually walking in a circle, and oftentimes staggering and falling. If they do so and they are filled with gas they should be tapped with a cattle trocar to prevent death from smothering. If they are noticed in time, or before they go down, a dose of Laxotonic (see page 145) should be given according to directions until they recover. A gag may be placed in her mouth.

GRUBS OR WARBLERS IN SKIN OF CATTLE.

Grubs or Warbles in the skin of cattle are caused by a fly which deposits its egg during the summer months in or on the skin of the animal and the egg is retained in the winter months in a little round sack beneath the skin, having a small opening through which the larva escapes in the early part of the following summer and develops into a fly.

TREATMENT.

To overcome and prevent the development or hatching of this fly the grub which is found beneath the skin of the animal along the back and is known by a swelling about the size of a boil, should be opened by squeezing, then inject a little Healing Oil a few times by the use of a small oil-can. The time to do this is during the early part of spring.

HARD MILKERS.

This is due to an unnatural condition of the sphincter muscles at the end of the teat, and often what might be a valuable cow is, on this account, considered a valueless animal, or one of much less value than a nice easy milker would be.

TREATMENT.

Wash the ends of the teats thoroughly with Germ Killer solution (one ounce to a gallon of water) and dip the Teat Plug (see page 166) into a clean solution of the same strength and insert it into a little Badger Balm and introduce it into the teat clear to the shoulder, so as to pass the enlargement of the teat plug into the teat far enough to admit the bulb which stretches the contracted muscles and retains the plug. The teat plugs should be allowed to remain in the teats from one milking to another until milking is made easy, requiring from three to six days. Do not use the milking tube instead of teat plug, as it will admit the air and is liable to cause infection.

INDIGESTION.

It is pretty well understood by most stock owners that indigestion may be due to many causes, such as cold water, musty, bulky, fibrous food and irregular feeding. This can be overcome by giving Cow Tonic according to directions, and the bowels should be kept open by giving Laxotonic internally and warm water injections (per rectum).

INFLAMMATION OF THE LUNGS.

Inflammation of the lungs may be known by the presence of hard breathing. The animal stops as though exhausted and extends the neck and head; dilates the nostrils and turns the limbs or elbows out on either side of the body, while at the same time it will appear to be very much distressed. The breathing may be rapid and short. The temperature should be taken and is usually found high.

TREATMENT.

Give the Fever Paste (see page 152) according to directions and apply the White Liniment (see page 150) to both sides of the chest. Give warm water injections (per rectum) twice daily, and the bowels may be kept open by giving Laxotonic according to directions. In severe cases apply the Antiseptic Poultice to the chest (both sides) and to the throat if need be. Give bran mashes made of linseed tea.

INFLAMMATION OF THE WOMB.

Inflammation of the womb is a very serious and obstinate disease.

The treatment is to give Fever Paste according to directions and warm water injections of Antiseptic solution per vagina three times daily; introduce a half pound of lard after each injection. The bowels should be kept open by giving Laxotonic according to directions.

INFLAMMATION OF THE UDDER.

Give Cow Tonic according to directions and wash the udder with a warm solution of Germ Killer twice daily, and apply Badger Balm or White Liniment well rubbed in; then apply Antiseptic Poultice. Keep the animal well bedded to protect the udder from coming in contact with any dampness. (See picture of cow on page 57.)

INFLAMMATION OF THE TESTICLES.

This may be due to an infection or an injury. In either case the testicles should be washed with a warm solution of Germ Killer and then thoroughly anointed with Badger Balm (see page 144); then apply Antiseptic Poultice. The animal should receive Cow Tonic according to directions to purify the blood and tone up the system. The animal should not be used for breeding purposes during the treatment.

INFLAMMATION OF THE TONGUE.

This will be known by a swelling of the tongue, slobbering from the mouth, and inability to swallow naturally.

TREATMENT.

Fever Paste (see page 152) in small and repeated doses should be given. Give bran mashes made from linseed tea and apply Antiseptic Poultice to the throat.

INFLAMMATION OF THE JOINTS.

This is very common in all joints, but is more so in the joints of the feet, and the treatment is to wash the affected joints with a solution of Germ Killer; thoroughly rub in Badger Balm (see page 144) and apply Antiseptic Poultice once daily.

ITCH.

Itch is a disease of the skin and may be due to a parasite or other causes. The treatment is to wash the parts thoroughly with a solution of Germ Killer (one ounce to a gallon of water), and apply Skin Ointment (see page 147) according to directions, thoroughly rubbed in. The animal should receive Cow Tonic according to directions to purify the blood and tone up the system.

LEUCORRHOEA OR WHITES.

Leucorrhœa or whites in cows is a catarrhal disease of the genital organs and is usually brought on by infectious abortion or retention of the afterbirth. They will be noticed to have a white or dirty discharge from the vulva, usually of an infectious nature.

TREATMENT.

The animal should receive Cow Tonic (see page 146) internally and the vagina should be washed out with a solution of Antisepto (see page 140) until all discharges cease.

LUNG FEVER.

(See inflammation of the Lungs, page 56.)

LUMP JAW OR ACTINOMYCOSIS.

The first appearance of Lump Jaw is either an enlargement of the jaw bone or an enlargement of the glands of the throat, which are just back of the angle of the jaw and at first they may be loose from the jaw but later on become adhered.

These swellings on the jaw or of the glands when broken will discharge a yellowish sticky pus which sometimes contains hard yellow granules or fragments of bone. As a result of the swelling the teeth may be pushed out of their natural position and consequently an animal cannot masticate its food properly and will soon run down in flesh, and the decaying of the bone oftentimes results in the destruction of the tooth sockets and the teeth often fall out.

Every swelling on the jaws of cattle should be regarded as possibly Lump Jaw, if the definite cause for it is not known. The swellings are sometimes noticed to remain for some time of the same size, but sooner or later the inflammation will cause the swellings to increase.

This disease is due to a germ and when pus discharges from any of these enlargements falls on the grass or feed of any other stock, other animals are liable to contract the disease. In this manner a whole herd may be ruined if the treatment is neglected.

TREATMENT.

When there is no external opening apply Absorbent (see page 150) until the enlargements are all absorbed or an opening produced.

When there is an external opening on the surface of the swelling Absorbent should be injected into the cavity, or a small strip of white cloth may be dipped into the Absorbent and stuffed into the cavity, leaving only the end of it hanging out.

Due to the run-down condition of the animal, on account of the inability to masticate the food which is due to the location of this disease, the Cow Tonic (see page 146) should be given to aid digestion, increase the appetite and hasten recovery.

In extremely bad and stubborn cases a drachm of Iodide of Potash may be given in the drinking water twice daily, but never drench them.

MAMMITIS.

(See article on Garget or Caked Udder, page 57.)

MILK BLUE.

Blue milk is due to an impoverished condition of the blood, and the treatment consists of giving plenty of nutritious food, to which should be added the Cow Tonic. (See page 146.)

MILK FEVER OR PARTURIENT PARESIS.

The stall which a cow with milk fever occupies should be well drained and plenty of bedding placed under cow. Unless the cow is standing, place her on her broadside and wash off her udder and teats with a solution of Germ Killer (one ounce to one

gallon of warm water). Dissolve one tablespoonful of Milk Fever Remedy in two quarts of warm water which has been boiled and cooled to blood heat; then inject this amount (one pint, or one-fourth of this solution) in each of the four teats by the use of the Milk Fever Injector, which must be thoroughly washed in a solution of Germ Killer to prevent infection of the teats or udder. After injecting one pint of the solution into each teat, place the lips to the injector and inflate the udder as much as possible by blowing with all the force possible into it until the udder is fully distended; then tie a small piece of tape around the point of the teats to keep the air from escaping. Remove the tape as soon as the cow gets up on her feet. After the udder has been thus treated, raise the cow up on her shoulders and prop her up by the means of bales of hay or bags of grain. Never allow her to lie flat on her side, except while washing and treating the udder. Give her a teaspoonful of Laxotonic, dry on the tongue (never drench a cow), every three hours until the cow is up and the bowels move naturally; then continue with the Laxotonic every six hours until



Overcoming a Case of Milk Fever.

the contents of one box has been given her, following the Laxotonic with the Cow Tonic to bring her back to her natural flow of milk. Keep a blanket on her until she recovers.

The air should be stripped out of the teats a few hours after she is up, and she may be milked a little twice daily until she gives a natural flow of milk, at which time she should be milked thoroughly dry at each milking. The feed should be of a laxative and nutritious nature, the chill taken from the drinking water for several days and a reasonable amount of exercise should be given her.

For complete outfit for overcoming Milk Fever see page 144.

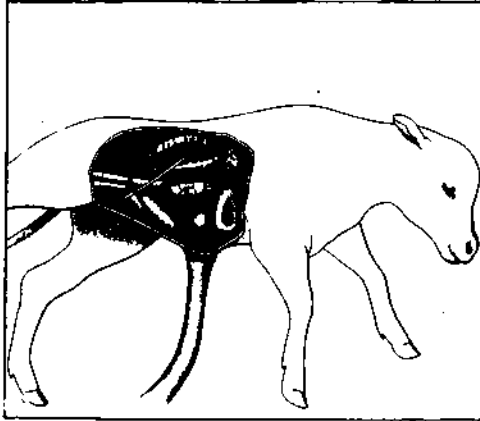
MILK BLOODY OR STRINGY.

Bloody or stringy milk are both due to a derangement of the system, and the treatment consists of giving Cow Tonic as directed, which will alter the condition of the blood to such an extent as to overcome this ailment. Give good, clean, nutritious feed—mashes made of flaxseed tea.

NAVEL DISEASES OF CALVES.

Navel Disease in calves is a germ disease that affects the navel cord, and takes place oftentimes at birth, due to the parts becoming infected by germs which not only cause the navel to become sore and inflamed, but they enter the body at this point and

cause a swelling of the joints; this results in lameness and a gathering of matter or pus, at the same time causing a lack of ambition, dull, sickly appearance, indigestion and scours, and unless proper treatment is promptly given the disease will cause a sloughing of the joints or death by scours.



Navel or Umbilical Cord.

TREATMENT FOR NAVEL DISEASES OF CALVES.

It is better to prevent this disease than to treat it after it has appeared. This can be done by thoroughly disinfecting the stall in which the cow calves, and when the calf is born the navel cord should be tied with a string dipped in Umbilicure (see page 151), and Umbilicure should be applied to navel cord until it dries up and drops off and the wound heals.

PARALYSIS OF THE BOWELS.

Paralysis of the bowels in cattle is a very common but seldom recognized ailment, even by the most skilled persons, and is a result of an overloaded and overworked condition of the bowels, and in nine times out of ten it is mistaken for constipation, for the reason that it appears very much like constipation and is difficult for anyone but a skilled hand to recognize the difference until it comes to the treatment, which is entirely different. For instance, "A remedy that will overcome constipation will not overcome paralysis, but a remedy that will overcome paralysis will overcome constipation."

As 75 per cent. of the cases of stoppage of the bowels is due to paralysis and only 25 per cent. due to constipation, it would be advisable for all stock owners to be on the lookout for paralysis when stoppage of the bowels is met with.

If a cow afflicted with paralysis of the bowels be given a physic it will have a tendency not only to irritate the bowels, which are unable to throw off the already poisonous, irritating contents, but will oftentimes produce inflammation of the bowels and death will soon follow. While on the other hand, if a cow be afflicted with paralysis of the bowels and she be given a laxative and tonic which loosens the bowels by toning them without any irritation whatever, the results will be favorable, and in case it should be constipation without paralysis the bowels will be loosened by being toned just the same.

TREATMENT.

In all forms of stoppage of the bowels in cattle, whether due to constipation or paralysis, give Laxotonic (see page 145) according to directions, at the same time give from two to four quarts of luke-warm water per rectum once or twice daily to empty the small intestines.

Give the animal bran mashes made of linseed tea, feed sparingly, remove the chill from the drinking water and give moderate exercise when able to take same.

PARALYSIS OF THE HIND PARTS.

This is a disease of the nerves which is usually present and follows milk fever, but does sometimes occur independent of anything else, and the treatment consists in giving Laxotonic (see page 145), both to keep the bowels open and to overcome the paralysis. The animal should be given warm water injections (per rectum); should be turned several times daily from side to side. Apply White Liniment to the spine. Give nourishing and laxative food and plenty of water. The urine should be drawn if she is unable to pass it.

PINK EYE.

(See Catarrhal Fever, page 53.)

RED WATER IN CATTLE.

This is a common affection among cattle in certain localities, and is more common in Europe than anywhere else. It may be caused by injuries of the back; eating irritating plants; being exposed to low, damp districts, etc. But the most common form of red water usually infects the whole herd. This is the form that most breeders have to contend with. The symptoms are bloody urine, associated with a high fever, usually, and a milking cow may be troubled with a frothy condition of the milk, this having a reddish tinge.

TREATMENT.

Rid the bowels of the irritating contents, and by so doing relieving the kidneys, which are always overtaxed. It is their overtaxed condition which produces the hemorrhage, and the result is red urine or red water. To relieve the kidneys of their irritated and overtaxed condition, the Kidney Cure (see page 158) should be given. The bowels should be emptied by giving two to four quarts of warm water (per rectum). A complete change of feed is necessary; this should be of a nutritious and laxative nature; giving plenty of bran mashes, made from linseed tea and allowing the animals to drink all the linseed or slippery elm tea that they want.

RHEUMATISM.

Rheumatism is a disease due to an acid in the blood, and usually affects either the muscles or joints, or both.

The treatment consists in giving Cow Tonic as directed and applying White Liniment (see page 150) to affected parts. The feed should be nutritious and of a laxative nature. In bad cases, poultice joints with Antiseptic Poultice.

RINGING BULLS.

The animal should be placed in a stanchion, a rope placed around the neck or horns and a loop around the nose; then fasten the rope to one side or the other so as

to keep him from swinging his head from side to side. The operator then takes the cattle trocar and passes it directly through the partition between the nostrils. The bull ring should be dipped in Healing Oil, then passed through the opening and joined in the usual manner.

RINGWORM.

Ring Worm is due to a parasite which affects the skin only. It has the appearance of a gray, crusty condition of the skin, which soon destroys the hair follicles and the hair falls out, leaving the skin in a dirty and scabby condition.

TREATMENT.

Give Cow Tonic internally, and wash off the affected parts with a Germ Killer solution and apply Skin Ointment (see page 147), thoroughly rubbing it in.

SCOURS IN CALVES.

(See Calf Cholera, page 49.)

SKIN DISEASE.

There are several forms of skin disease, such as itch, ring worm, mange, eczema, etc., etc., and it is hard for an inexperienced person to distinguish one from another.

The treatment consists in giving Cow Tonic internally; washing all the affected parts with a warm solution of Germ Killer (one ounce to a gallon of water), and applying the Skin Ointment (see page 147), thoroughly rubbed in. Continue this until the skin heals and all signs of itching or irritation have passed away.

SLOBBERING.

Slobbering is not a disease, but an ailment which is due to several causes, such as an inflamed condition of the tongue, ragged edges of the teeth, or an overloaded stomach.

TREATMENT.

If due to ragged edges of the teeth, they should be filed. If due to swollen condition of the tongue, give Fever Paste. (See page 152.) If due to an overloaded stomach, give Laxotonic.

SORE MOUTH.

This may be due to several causes, such as sharp teeth, inflammation of the tongue.

TREATMENT.

Dress the teeth and wash out the mouth thoroughly with a solution of Antisepto, and give small and often-repeated doses of Fever Paste. (See page 152.)

SORE THROAT.

May be due to taking cold or infection, such as catarrhal fever.

TREATMENT.

Give Fever Paste (see page 152) internally and apply the White Liniment (see page 150) to the throat externally from ear to ear. The bowels should be kept open with Laxotonic and warm water injections (per rectum) and soft and nutritious feed. Apply Antiseptic Poultice to throat if needed.

SPRAINS.

Sprains are brought on by violent injuries and usually affect the tendons, joints and muscles. The treatment is to wash the parts off thoroughly with a warm solution

of Germ Killer (one ounce to a gallon of water) and apply the Antiseptic Poultice (see page 148), continuing this until all fever and swelling have disappeared. If the lameness remains, the parts should be blistered with Lucky Four Blister, applied according to directions.

SUNSTROKE OR OVERHEATED.

This is usually brought on by over-exertion, such as too fast driving, etc., etc. The treatment consists in sponging the animal with cold water. Keep in the shade where the air is fresh and pure. Give Fever Paste (see page 152) to reduce the temperature, and small sips of water at short intervals. Give linseed tea to drink, if animal will drink. Do not drench.

SUPPRESSION OF MILK.

This is not a disease but a condition which exists more often in cold weather than in warm weather, and is often due to some derangement of the system. The treatment consists in giving Cow Tonic (see page 146) according to directions until the natural flow of milk is brought back.

SURGICAL OPERATIONS.

All surgical operations should be performed in a careful and cleanly manner. Knives and instruments should be thoroughly cleansed and dipped into a strong solution of Germ Killer (see page 147), and the seat of the operation should be thoroughly washed with the same solution. Then apply Healing Oil (see page 156) to the hands, instruments and the parts to be operated upon, and the results will always be favorable.

TEAT STOPPAGE OR STRICTURE.

This is a very common, annoying and complicated ailment. There are two forms of stricture or stoppage; one at the point of the teat, and one at the basis of the teat. In either case the treatment is to wash the teats off thoroughly with a solution of Germ Killer. Teat Plug (see illustration, page 166) should also be washed in the same solution. If the stoppage be at the point of the teat, dip the point of a Teat Plug into the Badger Balm and pass it into the teat far enough to cause the little bulb to enter the teat. When this is done the plug will be retained and should be allowed to remain from one milking to another. The treatment continued until milking becomes perfectly natural and easy.

If the stricture be higher or at the base of the teat, a Teat Expander (see illustration page 166) must be passed up through the stricture. After it is in position, the center part of the expander must be pressed upon. This will spread the upper part of the expander sufficiently to expand the stricture. However, this instrument should not be allowed to remain more than from one-half an hour to an hour at a treatment. A Teat-Bistoury may be used in the same manner. Badger Balm should be applied to the instrument before inserting. The hands of the operator and whole udder of the cow should be thoroughly washed before the operation is begun. Cleanliness must be given strict attention in these cases or the results will not be favorable.

TEAT SORE.

This common form of sore teats may be treated by applying Badger Balm. (See page 144.) This should be done after milking, leaving the teats in a nice, clean condition so as to heal between milkings.

TEAT WARTS.

Teat Warts are small appendix which may adhere to the teats in a small or great number. Treatment consists in touching the little warts with Wartine (see page 151) according to directions.

TUBERCULOSIS

Tuberculosis or Consumption in cattle is an infectious and communicable disease known by the formation in the glands and other parts of the body of small bunches called tubercles. It is from these tubercles that the disease receives its name, Tuberculosis. The germs of tuberculosis enter the body by way of the nostrils in the air breathed, or by way of the mouth or digestive tract in feed, also through the genital organs by conception. As soon as the germs enter the body they begin to multiply, slowly but surely, until the entire body of the animal becomes affected; such animals spread the disease to other animals stabled with them and calves or pigs consuming milk from a tuberculous cow are liable to become affected as are human beings.

All germ diseases, and especially tuberculosis, are more liable to affect animals that are in a run-down condition, such as cows afflicted with infectious abortion or retained afterbirth, than those that are in a strong, healthy condition, for the reason that the animal that lacks vitality acts as a hot-bed for the germs of diseases to propagate or multiply, while the healthy, strong, vigorous animal may ward off the disease to some extent.

HOW TO PREVENT TUBERCULOSIS.

Tuberculosis being largely a house or stable disease due to artificial life such as being housed or stabled, every possible precaution must be taken to prevent disease. One tuberculosis cow in a close, foul, hot, badly ventilated stable will infect all other cattle in the barn. Even in the best of barns where the presence of any weakening disease, such as infectious abortion, contagious mammitis, dysentery, retained afterbirth exists, there is danger of these diseases inviting the entrance and spread of tuberculosis and destruction of the herd. To prevent and guard against such disease, it is necessary to maintain absolute cleanliness.

THOROUGHLY DISINFECT ALL STABLES.

Allow plenty of sunlight, perfect ventilation to remove foul gases, and allow fresh air to enter. Stamp out contagious abortion and such other debilitating diseases as above mentioned.

DETECTING THE PRESENCE OF TUBERCULOSIS.

By means of the tuberculin test it is an easy matter to quickly and surely tell whether tuberculosis is present in a herd. It is a reliable method of detecting tuberculosis, even in its early stages. All herds should be tuberculin tested. Every animal in every herd of cattle should be tested, as tuberculosis affects a herd to such an extent as to render it unprofitable, although it may be the picture of health.

The owner can easily and safely apply the test himself after receiving proper instructions, instruments and a reliable tuberculin, which is a very important part of the test. The test should be applied to a herd, and if any diseased animals are found, they should be removed. The balance of the herd should be tested again in three months. Repeat the test every three months, removing after each test all infected cattle until all

tuberculous animals are wiped out of the herd. The remainder of the herd should then be tested every six months, or at least once a year to be on the safe side. At the same time, all cattle affected with contagious abortion or other diseases should be treated until perfectly well, as they are in condition to attract tuberculosis.

In conducting the tuberculin test each animal in the herd should be marked by a number tag; the number on the tag should correspond with the number on the tuberculin chart or certificate, showing a record of the test of each animal in the herd.

The tuberculin certificate referred to will protect the reputation of the owner and insure the acceptance of the cattle he has for sale and also the product of his dairy, which will command the highest market price, and the extra profits will return many times the cost of testing. Test each new animal before it is allowed to mix with the herd.

STATE DOES NOT MAKE TEST UNLESS TUBERCULOSIS EXISTS.


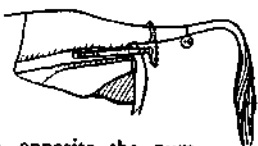

Test your herd without waiting for the state to do it. The state officials only test a herd when tuberculosis is known to be present, when someone has complained that the cattle are diseased, and by that time the reputation of the herd may be ruined. Make the test at once on general principles for your own information and benefit, whether tuberculosis is, or is not known to be in your herd. If you make the test at once, you will save all cows that are not affected; if you put the test off, the cows which you could save now, will sooner or later become diseased and a loss to you. Learn to make the test yourself so that you may apply the test every six months, or at least once a year.

Stock owners should urge their neighbors to test their cattle at least once a year so as to keep the community free from tuberculosis.

See page 165 for further information.

HOW TO APPLY THE TEST.

Before commencing the test, each animal should be tied up in the stable for at least three hours. Do not test a sick animal or one in heat or otherwise greatly excited, twenty-four hours before or after calving, or one just having aborted or retained her afterbirth. Avoid testing in extra hot weather. Make no sudden changes of food at any time of test and do not give cold water just before taking temperature. Do the work as gently and quietly as possible to prevent unduly exciting the cattle.


This Thermometer is to be inserted in the rectum of the animal to be tested, thus:  place clasp on tail so that thermometer cannot fall out and break. Leave thermometer in place for five minutes, remove and read figures, and then jot them down on record sheet or chart (included in each outfit) opposite the number of the animal to be tested, as shown by the tag. These number tags are supplied free of charge with each outfit. Begin at cow No. 1 and test each animal in turn, taking each temperature in the same way, being careful to shake the mercury down below 100 before inserting the thermometer. This is done by holding the thermometer tightly, then giving it a quick jerk. A little vaseline applied to the rectum of each animal at beginning of test makes it easy to insert the thermometer.  

FIRST TEMPERATURES (First Day).

Temperatures should be taken at 3 p. m., 5 p. m. and 7 p. m.
Tuberculin should be injected after the 7 o'clock temperature.

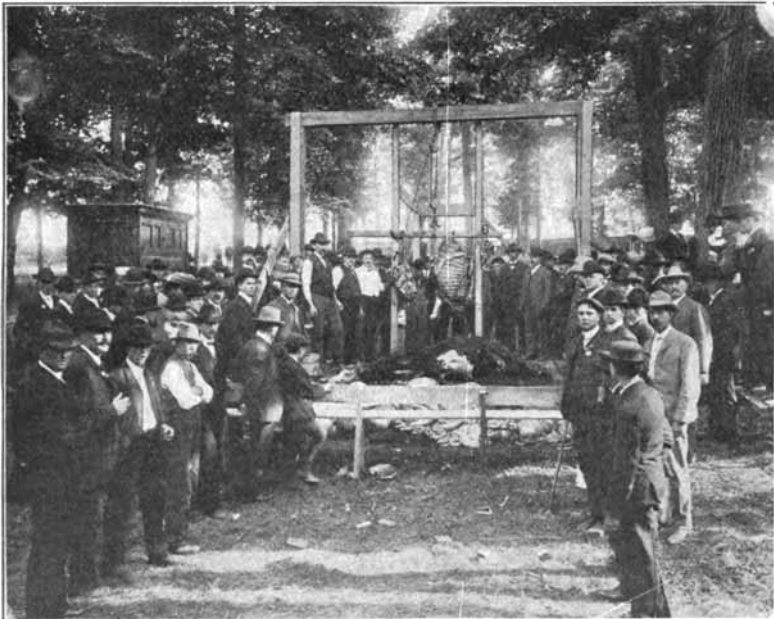
INJECTING THE TUBERCULIN.

Fill this Hypodermic Syringe  with Tuberculin.

Pick up the skin of the animal, with the left hand directly back of shoulder blade in this manner:  and with a quick, short jab with the syringe insert the needle into the skin. Then press in piston to first notch in piston, this being half dram— $2\frac{1}{2}$ C C, or one dose for a full grown animal. The entire herd should be watered and returned to their places.

**NEXT TEMPERATURES (Second Day).**

Temperatures should be taken 10 hours after injection of Tuberculin and following every 2 hours. These are the hours: 6 a. m., 8 a. m., 10 a. m., 12 m. and 2 p. m. (See Tuberculin Testing Outfit, page 165.)



AUTOPSY OF TUBERCULAR COWS AT WISCONSIN STATE FAIR.
A—Shows Healthy Lung. B—Diseased Lung.

TUMORS.

As tumors come under the head of operations, it is needless to say that in their treatment absolute cleanliness, both of hands and instruments, is essential. The parts should be thoroughly washed with a solution of Germ Killer, and this followed with applications of Healing Oil. (See page 156.) To heal the wound use alternately Healing Oil and Healing Lotion.

TICKS.

Cattle Ticks are small parasites which attach themselves to the skin of cattle, and they are frequently the means of spreading Texas Fever, which is a fatal disease unless the Ticks can be destroyed before the last stages of it are reached.

TREATMENT.

The treatment consists in washing the whole animal thoroughly with a warm solution of Germ Killer; then applying to all parts of the body and thoroughly rubbing in the Skin Ointment (see page 147). All affected and exposed animals should be treated in this manner until all danger is past. Give Cow Tonic internally to tone up the system.

ULCERS.

Ulcers may be an inflamed condition of any part of the body. The treatment consists in washing the parts thoroughly with a warm solution of Germ Killer and applying the Healing Oil to all affected parts, alternating with Healing Lotion. (See page 153.)

URINE RETAINED.

Retention of the Urine is usually brought on by any form of paralysis of the hind parts, such as occurs in Milk Fever. The treatment consists in passing a Catheter, which is a silver-plated tube about a foot in length and a quarter of an inch thick, into the bladder. This will allow the urine to flow freely. This instrument should be passed in all cases of paralysis of the hind parts, as there is usually a retention of the urine.

VOMITING.

SYMPTOMS.

In the first place there is a loss of appetite, and the animal only takes part of its feed. Later on it fails to eat at all; and finally vomits what it has eaten. In other cases, the animal may be in a poor condition, and perhaps has been given food sparingly, then allowed to eat an over amount. In this case it is liable to eject or vomit from five to ten pounds; and will then oftentimes go on eating as though nothing had occurred. In either case, vomiting is due to indigestion, and the treatment consists in giving Cow Tonic to overcome indigestion, and to tone up the system; and the bowels, which contain a lot of undigestible material, should be toned up and emptied by giving Laxotonic (per mouth) (see page 145), and from two to four quarts of warm water (per rectum). The animal should be given bran mash made from linseed tea. To prevent the whole herd from becoming thus afflicted, mix Condensed Stock Food with salt and place in sheltered troughs where the cattle can have free access to same.

WARTS.

Are little tumors, and often appear very suddenly and are liable to appear at any part of the body or limbs, angles of the mouth, corners of the eyes or tips of the ears. For this reason they are difficult things to remove, and great care should be taken in removing them. The only safe and reliable method is to apply Wartine, once daily, to warts of all kinds until they disappear. The large warts should be pulled out by the roots, with the fingers or forceps; then apply the Wartine (see page 151) and Healing Lotion alternately to the wound thus made.

WOUNDS.

There are many different kinds of wounds, both external injuries, and by an improper condition of the blood.

Wounds of every nature, both surface and deep-seated, should be washed with a solution of Germ Killer.

Use both Healing Oil and Healing Lotion, alternately. Apply and inject same in the following deep-seated wounds, and into abscesses and fluid sacks, after they have been opened; capped knees; blood blisters (or bruises); fistulas; lump jaw abscesses, or abscesses of the udder; punctured or lacerated wounds, such as are often caused by barb-wire, tin, glass, nails or slivers; sore feet due to cracking, and formation of ulcers between the claws; wounds left after removing large warts.

It is difficult and important in all deep-seated wounds to keep proud flesh from forming, and to cause the wounds to heal nicely without a scar. This can be done if the above directions are carefully and closely followed.

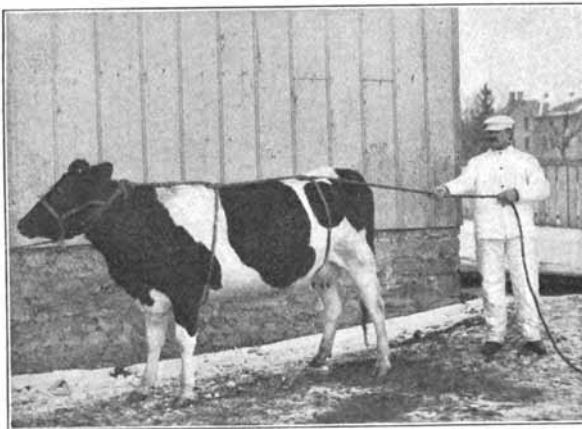
GERM KILLER cleanses the wound.

HEALING LOTION prevents proud flesh.

HEALING OIL soothes and heals.

Above are listed in back part of book.

Use Healing Oil for superficial or surface wounds such as cracked or inflamed skin; cracked heels; bruises or irritated skin, such as is often noticed on the knees, ankles, hocks, and hips, from lying on cement floors; cracked or sore teats; sore mouth, both around the mouth and inside; bites of insects; poisoned or inflamed condition of the skin, and all superficial irritations of the skin.



DEVICE FOR THROWING CATTLE.

Healing Oil should be used freely on the instruments and hands of the operator. It should also be applied to the scrotum of all live stock castrated, such as calves, colts, lambs and pigs.

Healing Oil is invaluable to the veterinarian, or to parties who make a business of castrating stallions, bulls, boars, or rams, as it will prevent infection and blood poisoning in all surgical operations.



**Herd of Cows Shipped to Waukesha for Serum Treatment for Abortion
Returned Home Cured.**

SWORN TESTIMONY REGARDING SUCCESS
of
Dr. David Roberts' Anti-Abortion Serum.

**The Most Impressive Array of Legal Evidence Ever Presented in Behalf of
Veterinary Medicines.**

This book may reach some who are not familiar with the remarkable achievements of Dr. David Roberts in stamping out Infectious Abortion by means of his Anti-Abortion Serum.

For this reason, we take pleasure in submitting testimony in the form of affidavits, legally sworn to before properly constituted authorities, which any stock raiser must accept as absolute proof of every claim we make for this Serum. This testimony is supplemented by many other signed statements from men well known in the cattle industry, whose reputation for truth and veracity is unquestioned.

WISCONSIN EXPERIMENT STATION.

**Recognizes and Endorses Dr. David Roberts' Anti-Abortion Serum—Mr.
Baird's Herd Saved from Ruin.**

State of Wisconsin, }
Waukesha County. } ss.

To WHOM IT MAY CONCERN:

S. A. Baird, being first duly sworn, on oath deposes and says as follows:—

My herd of cows was afflicted with Infectious Abortion for at least six years—losing a large number of calves each year—at the same time trying to get rid of the disease by selling the cows or heifers that aborted and buying new ones in their places, but the new ones would abort very soon after being brought into my herd, in this way the disease seem to increase. My loss being greater each year. I used various remedies advertised for the cure of this disease, but they all failed to even improve my herd. I began to think it was an incurable disease and was very much discouraged, when I happened to think that the Wisconsin Agricultural Experiment Station at Madison might be able to give me some information in regard to the disease or a treatment for same. So I wrote to Prof. W. A. Henry, who is president of the Wisconsin Agricultural Experiment Station and was answered by Prof. W. L. Carlyle, who was at the head of the Animal Husbandry and who advised me to consult Dr. David Roberts of my own city in regard to my afflicted herd, which I did. The Doctor advised me to treat my herd with his ANTI-ABORTION SERUM, which I began doing on the 19th of December, 1899, and gave them a full treatment according to directions with the best results. I am positive the SERUM cured my herd and it prevented some of my cows from aborting after they had showed symptoms, such as swelling of the udder and vulva. The symptoms would disappear in about ten days, and the cows would carry their calves full time. It has done all that DR. ROBERTS claims for it and I cannot speak too highly of it. It has given me both pleasure and profit.

Signed:

S. A. BAIRD,
Waukesha, Wis.

Subscribed and sworn to before me this 20th day of November, 1903.

HARVEY J. FRAME,
Notary Public, Wis.

[SEAL.]

Professor A. S. Alexander, M. D. C. V. S., Veterinarian of the Wisconsin Agricultural Experiment Station, Madison, Wis., permits me to refer to him as a believer in the efficacy of DR. ROBERTS' ANTI-ABORTION SERUM, and in giving advice by mail to a Wisconsin correspondent some months ago said: "I must confess, however, that I cannot prescribe anything for contagious abortion that gives as good results as those ob-

tained from the use of Dr. David Roberts' Anti-Abortion Serum, which to my knowledge has succeeded where thorough application of an antiseptic treatment advised by me had failed to stay or prevent the disease. His other remedies are also reliable and worthy of extended use by stockmen." DR. DAVID ROBERTS.

YESKA SUNBEAM HOLDS WORLD'S RECORD.

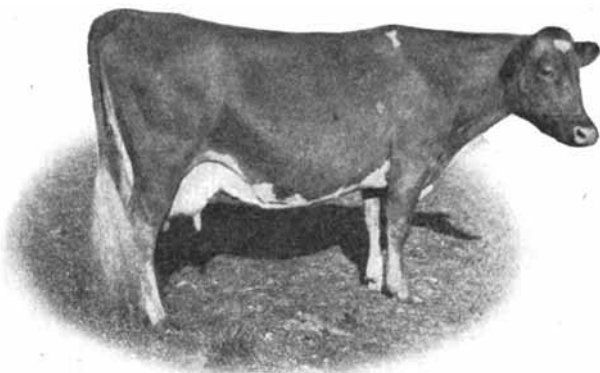
ATHENS, WIS.

Dr. David Roberts, Waukesha, Wis.

MY DEAR DOCTOR.—It is now just a year since you went over my logging horses. While they are much better than in former years before you gave them attention, it is to be nevertheless presumed that in a bunch of fifty there will be some that need their teeth dressed again and other ailments looked after.

My Guernseys should also have their annual tuberculin test applied, so when you come bring tuberculin enough to test 80 head. We might do the testing ourselves, but I will feel safer to have it done by a skilled hand.

And I think you will want to see Yeksa Sunbeam after taking the world's record on both milk and butter fat production, 14,920 pounds of milk and 857.15 pounds of butter fat, equal to 1,000 pounds of butter. This is a large amount for a cow to produce in one year; but she is not alone in the herd that has done or is doing fine work. The cows are all doing well and the whole herd is doing fine.



YEKSA SUNBEAM 15439 A. G. C. C.
Dropped April 2, 1895. Helendale Herd, Athens, Wisconsin.
Fred Rietbrock, Proprietor, Milwaukee, Wis.

There has not been a case of abortion since March last. Cows and heifers are carrying their calves full time and drop sound and healthy calves. We have used your ANTI-ABORTION SERUM as directed with great effect, and have also had splendid results with your Laxotonic, given with a spoon dry on the tongue, also with the Healing Oil on the horses' shoulders.

In one word, I am satisfied that your veterinary remedies are excellent and are effective for the purposes recommended.

Now, if a trip of 230 miles is not too far to come on such short notice, come while I am here, as I expect to stay till about the 28th or 29th inst. Let me know when you will be here.

Yours truly,

FRED RIETBROCK.

State of Wisconsin, }
Waukesha County. } ss.

Dr. H. H. Smith, of New Munster, Wis., being first duly sworn, on oath deposes and says as follows:

SWORN TESTIMONY REGARDING SUCCESS.

I have used DR. ROBERTS' ANTI-ABORTION SERUM in my practice for the past three years and have found it all that is claimed for it.

I cheerfully recommend it to other veterinarians.

Signed:

DR. H. H. SMITH,
New Munster, Wis.

Subscribed and sworn to before me this 17th day of January, 1903.

A. L. BLACKSTONE,

CURED TWENTY-TWO COWS.

State of Illinois, }
DeKalb County. } ss.

I. Vandeburg, being first duly sworn, on oath deposes and says as follows:—

My herd of twenty-two cows being afflicted with Abortion in 1902, I decided to try DR. ROBERTS' ANTI-ABORTION SERUM, which I did with results satisfactory, and I believe if used according to directions is a sure cure every time.

Signed:

I. VANDEBURG,
Kingston, Ill.

Subscribed and sworn to before me this 2nd day of January, A. D. 1904.

J. A. MCCOLLON,
Notary Public, Wis.

[SEAL.]

AN ILLINOIS ENDORSEMENT.

State of Illinois, }
Johnson County. } ss.

This is to certify that I have used DR. ROBERTS' ANTI-ABORTION SERUM and find it to be all that is claimed for it.

I take great pleasure in recommending it to anybody whose herd is afflicted with Infectious Abortion.

Signed:

J. E. ARNOLD,
Vienna, Ill.

Subscribed and sworn to before me this 31st day of August, 1903.

S. A. VAN KIRK,
Notary Public, Ill.

[SEAL.]

WILL USE NOTHING ELSE.

MARENGO, ILL.

Dr. David Roberts, Waukesha, Wis.

DEAR SIR:—The ANTI-ABORTION SERUM and syringe which I bought of you last January came all right. I did not use it on my full herd, but just on those cows and heifers which showed signs of aborting, about eighteen head. All excepting one heifer carried their calves the full time, and that one aborted the third day after I got the Serum, so I am sure that your remedies did for us all we could expect of them, and I will not use anything else in case I am in need of such medicine.

Respectfully yours,

JOS. BERNER.

WANTS TEN MORE BOTTLES.

WASHINGTON, PA.

Dr. David Roberts.

DEAR SIR:—Please send me ten more bottles of your Serum for abortion in cows. I think it is simply a wonderful medicine. Before using your remedies my cows were badly afflicted with contagious abortion, not one in twenty that would not abort and afterwards would not get with calf. I began using your Serum last April, and have had no trouble of any kind with them since. One cow in particular that showed every symptom of aborting, I used the medicine as directed, the symptoms left, and she carried her calf the full term.

Please send this at your earliest convenience to Washington, Pa.

Very truly yours,

CLARK T. HARSHA,
R. D. No. 5.

HE RECOMMENDS SERUM.

MINIER, ILL.

Dr. David Roberts, Waukesha, Wis.

DEAR SIR:—I have used your ANTI-ABORTION SERUM and some of your other remedies and I am more than pleased with them. They will do all that you claim and I can recommend them to any one.

Truly yours,

CLARENCE WILSON.

SERUM DID ALL YOU CLAIMED IT WOULD.

WINDSOR, WIS.

Dr. David Roberts, Waukesha, Wis.

DEAR SIR:—Your ANTI-ABORTION SERUM did all that you claimed for it for me. I know that all my cows would have aborted if I had not used it. Four had aborted in one week previous to using it. I had only one abort after I commenced using it, though five more showed every symptom of abortion. The twenty cows in my herd had their calves alive and all right.

Yours truly,

S. D. B. MOONEY.

A HERDSMAN'S ENDORSEMENT.

OSHKOSH, WIS.

Dr. Roberts Veterinary Co., Waukesha, Wis.

DEAR SIR:—We have used several of your cattle remedies with excellent results and would cheerfully recommend them to Cattlemen and Veterinarians. The Cow Tonic and Laxotonic have produced marvelous results in severe cases of indigestion, constipation and loss of appetite. Your Condensed Stock Food, when mixed with ground flaxseed, makes a Stock Food that is an excellent conditioner for cattle, and we have also used it with good results for the prevention and cure of scours and indigestion in calves. Your Cow Cleaner should do away entirely with the dangerous practice of removing the afterbirth by hand, as it does the work surely and thoroughly and leaves the genital organs in a healthy condition; it is a wonderful remedy.

Yours very truly,

ALBERT PORTZ,
Herdsman.

COW CLEANER REMOVES RETAINED AFTERBIRTH.

WHEELING, W. VA.

Dr. David Roberts, Waukesha, Wis.

DEAR SIR:—I have used a number of your remedies and find them all that you claim for them. I have used your Cow Cleaner and find that it will remove a retained afterbirth and leave the cow in condition to breed without any trouble. I have also used your Laxotonic, and for constipation or stoppage of the bowels is the best remedy I have ever found.

Truly yours,

M. T. MONTGOMERY.

STOPPED LOSS OF CALVES.

State of Wisconsin, }
Waukesha County. } ss.

J. A. Griswold, being first duly sworn, on oath deposes and says as follows:—

My herd of twenty-five cows was afflicted with Infectious Abortion in 1898. After losing a number of calves, I began treating them with DR. ROBERTS' ANTI-ABORTION SERUM. I gave them a full treatment with very satisfactory results. I feel that they were permanently cured, for I have not lost any since that time.

The herd is in excellent condition, and I take great pleasure in recommending DR. ROBERTS' ANTI-ABORTION SERUM to any one whose herd is thus afflicted. I cannot speak too highly of it.

Signed:

J. A. GRISWOLD,
Duplainville, Wis.

Subscribed and sworn to before me this 10th day of August, 1903.

A. L. BLACKSTONE,
Notary Public, Wis.

[SEAL.]

VERY SATISFACTORY RESULTS.

State of Wisconsin, }
Waukesha County. } ss.

Henry Clausung, being first duly sworn, on oath deposes and says as follows:—

My herd of cows was afflicted with Infectious Abortion in 1902. After losing a number of calves, I began treating them with DR. ROBERTS' ANTI-ABORTION SERUM. I gave them a treatment with very satisfactory results. I feel that they were permanently cured, for I have not lost any since that time.

The herd is in excellent condition, and I take great pleasure in recommending Dr. Roberts' Anti-Abortion Serum to any one whose herd is afflicted. I cannot speak too highly of it.

Signed:

HENRY CLAUSUNG,
Grafton, Wis.

Subscribed and sworn to before me this 4th day of November, 1903.

[SEAL.]

CHARLES C. WIRTH,
Notary Public, Wis.

DISEASE WIPED OUT.

State of Colorado, }
El Paso County. } ss.

H. Botting, being first duly sworn, on oath deposes and says as follows:—

My herd of cows was afflicted with Infectious Abortion in 1901, and after having lost a number of calves I began treating them with DR. ROBERTS' ANTI-ABORTION SERUM with the best of success. The disease was checked and was entirely wiped out of my herd. I cannot speak too highly of this treatment, and can cheerfully recommend it to any one whose herd is thus afflicted.

Signed:

HENRY BOTTING,
Colorado Springs, Colorado.

Subscribed and sworn to before me this 26th day of October, 1903.

[SEAL.]

JAMES W. COFFEY,
Notary Public, Colorado.

A BOON TO DAIRYMEN.

Dr. David Roberts.

It is with pleasure that I make the following statement:—

For some time I was bothered with abortion in my herd. I used a number of different kinds of other medicines and they all failed. At last I began to use your Serum, and have found that it does what you warrant. It not only prevents abortion, but cures it. I have not had a case of abortion since I began to use your Serum. It is a boon to dairymen and my stable will never be found without it hereafter.

I will be pleased to answer any questions in regard to my experience with your Abortion Serum.

Signed:

E. R. FRANK,
Mindoro, Wis.

Subscribed and sworn to before me this 12th day of January, 1905.

GEO. S. HEWITT,
Notary Public, La Crosse Co., Wis.

My commission expires April 6, 1908.

TO WHOM IT MAY CONCERN:

I have used Dr. David Roberts' cattle remedies with excellent success.

For cows that do not clean properly after calving, Dr. David Roberts' Cow Cleaner is a sure, safe and economical remedy.

The Laxotonic moves the bowels gently, yet effectually.

Abortion, one of the greatest contagious diseases among dairy cattle, is under control by the use of Dr. Roberts' treatment.

I have found the remedies for cattle to do all that is claimed for them and have no hesitancy in recommending them to stockmen whose stock needs attention.

Respectfully,

ARTHUR BENNETT,
Herdsman, Edgewood Farms, Pewaukee, Wis.

WE HAVE MANY TESTIMONIALS.

On account of the dread many breeders have of the disease, we refrain from using some of our strongest letters as testimonials, as breeders dislike to have it known that their herd has been afflicted.

All inquiries will be treated as strictly confidential. Serum will be shipped in a concealed form on request.

Please give express office address.



THE HORSE

History.

Symptoms and Treatment of Diseases
of the Horse.

Miscellaneous Information.

HISTORY.

As far back as history goes, we find that the horse was the servant of man. The first mention of the horse is as a domestic animal, and not as a wild animal.

The Arabs are renowned as early breeders of fine horses, and history tells us they considered their horses their companions, being kind in their treatment and holding them high in their affections. Great care and attention were bestowed upon breeding. In this manner they produced a breed of horses noted for its high intelligence, great speed and remarkable endurance. While they were always careful and considerate of their horses, still they expected always that a horse would do its best for them, and that it would endure many hardships. They were the first to establish pedigrees, and the line of breeding in their day was considered as important to them as it is today among high-class breeders. Breeders of horses at the present time are following in their footsteps closely, guarding carefully the pedigrees of their horses, giving them better care and closer attention, and in this way producing a better grade of horses and endeavoring at all times to reach the highest mark possible.

To get the best results out of a horse it is necessary that he be treated with kindness and given the best care and attention.

HORSES' AGE.

To tell the age of any horse,
Inspect the lower jaw, of course;
The six front teeth the tale will tell,
And every doubt and fear dispel.
Two middle nippers you behold
Before the colt is two weeks old;
Before eight weeks two more will come,
Eight months the corners cut the gum.
The outside grooves will disappear
From middle two in just one year.
In two years from the second pair—
In three years "corners," too, are bare.
At two the middle "nippers" drop;
At three the second pair can't stop;

When four years old the third pair goes,
At five a full new set he shows.
The deep black spots will pass from view
At six years, from the middle two;
The second pair at seven years;
At eight the spot each corner clears.
From middle "nippers" upper jaw
At nine the black spots will withdraw;
The second pair at ten are bright;
Eleven finds the corners light.
As time goes on the horsemen know
The oval teeth three-sided grow;
They longer get—project—before
Till twenty, when we know no more.

—DR. DAVID ROBERTS.

Symptoms and Treatment of Horse Diseases

ABORTION IN MARES OR SLINGING OF THE FOAL.

From the third to fifth month of pregnancy there is danger of mares aborting, and to avoid this danger they should receive good, clean, nutritious feed, stables should be well lighted, well ventilated and well drained, and a good germ-destroying disinfectant should be used to overcome and allay all foul odors, which usually indicate that there are germs present.

The system of a mare at this time is in a very delicate condition, and if there be any time during the entire period of pregnancy that she requires a tonic it is at this period. The Breeding Tonic is specially prepared for this purpose and is invaluable for pregnant mares. (See page 141.)

ABSCESS.

An abscess is a gathering of pus or matter in a sack and it may develop in any part of the body. The most common locations for them to form is between the lower jaw. This may be due to Distemper, or it may form on the withers, and is then known as Fistula Withers. If on the head, it is then known as Poll Evil.

Abscesses are caused by either impure blood or bruises.

If due to impure blood, this should be overcome by giving Physic Balls and Horse Tonic (see page 154).

HOW TO TREAT ABSCESES.

An application of Antiseptic Poultice (see page 148) should be placed upon the seat of any abscess, continuing this treatment until the abscess comes to a head, at which time it should be opened with a sharp, clean, pointed knife, at the lower part of the abscess, making a cut so as to allow all matter to flow out freely. The knife should first be dipped in a solution of Germ Killer and then in Healing Oil to prevent infection. Then make a solution of Germ Killer and wash out the cavity by the use of a syringe or an overhead flushing tank with a rubber hose connected.

After the abscess is thoroughly washed out, inject Healing Oil or Healing Lotion.

ASTHMA.

Asthma is similar to heaves. (See Heaves, page 93.)

AZOTURIA, OR PARALYSIS OF THE HIND PARTS.

This is a disease which comes on suddenly and is due to an acid condition of the blood. It sometimes affects the front parts as well as the hind parts, and the animal may come out of the barn feeling fine, ambitious, willing to go and often go faster than usual, but before it has gone very far it begins to lose its spirits, hang back, sweat profusely, breathe hard and begin to knuckle over behind, get lame in one or both hind limbs, and in a short time is unable to go any farther and often falls helpless on the road.

TREATMENT.

Roll the animal on a stone boat and haul to the nearest warm, comfortable stable; place it in a large box stall, never in a single stall. Give one bottle of Colic Cure (see page 155) and follow with the Kidney Cure (see page 158) according to directions. Half a bushel of dry, hot salt may be placed upon the kidneys. The body should be kept warm by placing a blanket on. Give four quarts of warm water injections (per rectum) by the use of a hose and funnel (and the urine should be drawn by means of a catheter). The animal should be turned from side to side as long as it is unable to rise, and it should be kept down by hobbles until it is able to get up and stand alone. This will keep it from injuring itself by floundering.

Give the animal all the water it wants to drink, with the chill taken off, and very little feed, if any, should be given during the first twenty-four to forty-eight hours. The animal should receive light food for several days.

BARRENNESS IN MARES.

Barrenness, sterility or failure to breed in mares is due either to imperfect, unnatural or diseased genital organs. Imperfection of the genital organs may be due to an undeveloped womb or ovaries.

UNNATURAL CONDITION OF THE ORGANS.

An unnatural, swollen and inflamed condition of the genital organs may be brought on by a retention of the afterbirth, this being allowed to be retained in a decomposed condition until the mouth of the womb becomes irritated, scalded and sore, so that when it closes it heals closed so firmly that it cannot always be opened without mechanical aid.

DISEASED ORGANS.

The genital organs may become diseased from several causes, the main cause being neglect when they become affected with a catarrhal discharge. This disease is called Leucorrhœa, or Whites, and if a mare be served while in this condition the semen of the stallion will be destroyed by this corrosive discharge, thus preventing conception.

ALL HEALTHY MARES SHOULD BREED.

All reasonably healthy mares should be made to breed. This can be done with little trouble and slight expense if given proper attention. Many a valuable mare has been sacrificed or disposed of for the reason that they would not breed. This may have been due to a lack of proper information pertaining to this subject. It is a very important thing that a mare, in order to conceive, be in a reasonably healthy condition. The genital organs should be in a condition to perform their functional duties as nature would have them. A lack of secretion or an excess of secretion renders conception difficult. A lack of ambition or vigor, or an over amount of same, renders conception difficult. This should be overcome and controlled by the use of the Breeding Tonic, which contains ingredients that will regulate and control the genital organs. A mare should not be too thin (emaciated), thus lacking the strength which nature demands. Neither should she be too fat (plethoric) or over stimulated, for in this condition conception would be difficult.

FAVORABLE SIGNS FOR BREEDING.

A mare before breeding should be carefully examined to make sure that there is no unnatural discharge from the vulva. An unnatural discharge from the vulva may be a discharge of mucous streaked with or containing drops of matter or pus having a disagreeable odor, being of a very sticky nature, adhering to the tail or thighs. This would indicate the diseased condition of the genital organs and should be given prompt attention.

ANTISEPTO SOLUTION IMPORTANT.

The genital organs of all barren mares should be washed out with this solution until they conceive, whether they have a discharge or not. This solution will overcome the acid secretion which kills the semen of the stallion and prevents the mare from conceiving. It will also prevent and destroy germs, soothe and heal all inflamed mucous membranes, thus preventing the formation of germs and the spread of the disease. If a mare be cared for according to the demands of nature and fails to get with foal, after being bred a reasonable number of times, she should have the mouth of the womb opened. This is done while the mare is in heat by inserting from one to two fingers. This will dilate the neck of the womb and make conception easy.

TREATMENT FOR BARRENNESS.

Barren mares should be given Breeding Tonic (see page 141) in their feed and their genital organs should be washed out with the Antisepto Solution.

As barrenness is either due to a diseased or weakened condition of the genital organs, it is unreasonable to expect a mare to breed until this condition is overcome. The Breeding Tonic contains such ingredients as will tone and strengthen and regulate the genital organs, in this manner putting them in a strong, healthy breeding condition. The neck of the womb can be opened by the fingers, if necessary, after this treatment.

BLOATING.

Bloating is due to indigestion and is caused by feed that is hard to digest. In order to avoid this trouble, which often proves fatal, see that your horses are digesting their feed. Their teeth should be dressed.

This bloating is more often called Wind Colic. It usually comes on rather suddenly and continues, if not checked, until the animal's abdomen becomes very much distended, and unless the horse receives a dose of Colic Cure (see page 155) it may be necessary to resort to tapping. This is done on the right side of a horse, and the left side of a cow, and the seat of operation is located a little below the point of hip and the last rib. The instrument used is a trocar and a canula, which is usually a little smaller than a cattle trocar.

Before the operation the parts should be washed with a solution of Germ Killer. A small slit one-fourth of an inch long through the skin is necessary before attempting to insert the trocar. The instrument should be thoroughly washed with a solution of Germ Killer and dipped in Healing Oil. This will prevent infection. An injection of four quarts of warm water (per rectum) should be given by the use of a hose and funnel.

BLOOD POISONING.

See Blood Poisoning in Cattle, page 48.

BOG SPAVIN.

This is a distension of the synovial bursa and is located just in front and to the inside of the hock joint and is usually caused by strains.

The treatment, which is very effectual in colts, consists in washing off the hock thoroughly with soap and water, allowing it to dry. Clip off the hair and apply the Absorbent (see page 150) according to directions. The animal should rest during the treatment, but good results have followed even when the treatment has been applied and the animal worked.

BONE SPAVIN.

Bone Spavin in horses is known by the enlargement and the limp. A hard, bony growth on the inner side of the hock joint, usually low down and a little forward of the center of the leg. In traveling there will be a quick hitch with the sound leg and a stiff movement of the lame leg, bearing the weight on the toe, most noticeable in starting. The enlargement is due to a growth between the outer edges of the hock joint bones.

TREATMENT.

The proper way to treat this is to absorb the growth between the edges of the bone by the use of Absorbent. When this is done the lameness will cease. (See page 150.)

BROKEN KNEE.

Broken knee means that a horse has fallen on his knees and broken the tissues, oftentimes so extensively as to cause the joint oil to flow.

The treatment consists in washing the parts thoroughly with a solution of Germ Killer (see page 147). Then apply the Healing Oil around the wound to the bruise, and apply the Healing Lotion (see page 153) to the wound itself.

Keep the animal quiet and free from exercise. If the animal has a desire to bite the sore, its head should be tied up.

BROKEN WIND.

Broken Wind is similar to Heaves and should be treated in the same manner. (See page 93.)

BRONCHITIS.

Bronchitis is similar to Pneumonia or Lung Fever and should be treated in the same manner. (See page 60.)

BRUISES.

Bruises and swellings affecting any part of the body should be treated by thoroughly rubbing in Badger Balm (see page 144) and thoroughly applying Antiseptic Poulrice (see page 148). This should be repeated and continued until all heat and swelling have disappeared.

BRUISES OF THE FROG.

This is usually due to traveling on stony roads, and the treatment consists in applying the Antiseptic Poulrice (see page 148) and continuing same until all soreness, heat and lameness have disappeared.

BURNS AND SCALDS.

All burns and scalds should be treated by applying Healing Oil or Badger Balm, then followed with Antiseptic Poultice (see page 148).

CALK WOUNDS.

A calk wound is usually caused by one horse stepping on another one; and a horse may calk itself.

TREATMENT.

The hair should be clipped from the injured part and the parts washed off with a Germ Killer (see page 147) solution; then by the use of the blacksmith's knife all parts of the broken hoof should be trimmed down as close as possible to give the wound a good drainage and prevent the formation of pus or matter which usually forms there. Lack of drainage will have a tendency to cause the horse to loose its hoof.

Apply Healing Oil around the wound and touch the wound with Healing Lotion. Then apply Antiseptic Poultice to the entire wound. The animal should receive laxative and soft feed during the treatment.

CAPPED ELBOW OR SHOE BOIL.

This is an enlargement usually due to bruising of the point of the elbow where a collection of liquid gathers in the form of a large sack. If the sack is quite large and very soft it should be opened and thoroughly washed out with a solution of Germ Killer (see page 147); then inject the Healing Oil. If the shoe boil is not ready to open it may be removed by applying the Absorbent.

CAPPED KNEE.

Capped knee may be treated in the same manner as capped hock.

CAPPED HOCK.

This is an enlargement due to bruising of the point of the hock and should always be looked after and treated in its earliest stage. The treatment consists in clipping off the hair, washing off the parts and when dry applying Absorbent (see page 150). One washing is usually sufficient. If a blister is required, apply the Lucky Four Blister according to directions.

CASTRATION OR CUTTING COLTS.

This is an operation which the owner of horses very seldom undertakes, but in case he should desire to do so, the parts should be thoroughly washed with a solution of Germ Killer and then apply a little Healing Oil. All the instruments used, and the operator's hands, should first be thoroughly washed in a solution of Germ Killer and dipped in Healing Oil to prevent infection.

CATARRHAL FEVER OR PINK EYE.

Catarrhal Fever is similar to Distemper or Strangles, affecting the mucous membrane, especially the air passages, and if neglected often causes Pneumonia and Bron-

chitis. There is usually a discharge from both nostrils. First it is a thin, watery discharge and often becomes a thick, matter-like discharge, and in many instances the horse may have Catarrhal Fever without discharging from the nostrils. There will be a soreness of the throat, inability to swallow, and loss of appetite.

TREATMENT.

If the temperature does not exceed 103 degrees the animal should be given a Physic Ball. If it should, omit the Physic Ball.

Apply White Liniment (see page 150) to the throat from ear to ear. If there be loud breathing apply Antiseptic Poultice from ear to ear to allay the inflammation. Give Fever Paste to reduce the temperature (in bad cases add one ounce of good whiskey to each dose of Fever Paste), and give Horse Tonic to keep up the appetite, and warm water injections to loosen up the bowels. Make a solution of Germ Killer or Disinfectall and dip gunny sacks in it and hang them around the stables to destroy the germs.

Allow the animal plenty of cold water to drink, and laxative food, such as bran mashes and grass in season.

CHOKING.

This is a stoppage of the food in the swallowing tube or gullet. Usually the obstruction stops just before entering the stomach, and as the animal swallows, each swallow is stopped in the tube until the tube or gullet is filled up with saliva and food. It will then begin to come out of the horse's nostrils in the form of feed, froth and saliva.

The animal, in its effort to swallow, appears to have a spasm, often squealing in a desperate effort to pass the food down.

TREATMENT.

Lead the animal down a steep embankment, stopping him at the steepest place, where the hind parts will be very much elevated above the front part. Then, by pressing the head downward, a great part of the matter will pass out through the nostrils. You are then to lead him back into the stable; back him into a single stall, and by the use of a Drenching Hook (see illustration, page 166) draw his head up gently and give him half a dose of Colic Cure, but only give him one swallow at a time, and that through the mouth, never through the nostrils. Then turn him loose in a large box stall. He should not be allowed to eat a mouthful of food of any kind. Neither should he be allowed to drink any water.

In one hour lead him down the embankment, and after so doing give him another dose of Colic Cure. (See page 155.) This should be repeated in the manner described every hour until the horse recovers. Feed sparingly after he recovers.

COCKED ANKLES.

To prevent and overcome cocked ankles, the toe cork should be left off; the heel of the shoe raised with heel corks. Apply White Liniment to the tendons from the hock or knee to the ankle. This should be continued until the proper results are obtained.

COLD IN THE HEAD.

A cold in the head may be thought by most attendants to be Distemper, but as the treatment is like that of Distemper, it does not matter.

The treatment consists of applying the White Liniment (see page 150) to the throat from ear to ear, giving the Fever Paste to reduce the temperature, and giving the Horse Tonic to keep up the appetite. Warm water injections should be given (per rectum) to empty the bowels.

COLIC.

There are only two kinds of Colic, Spasmodic and Wind Colic. They are often caused by a disturbance of the stomach and bowels, viz.: indigestion and fermentation of feed.

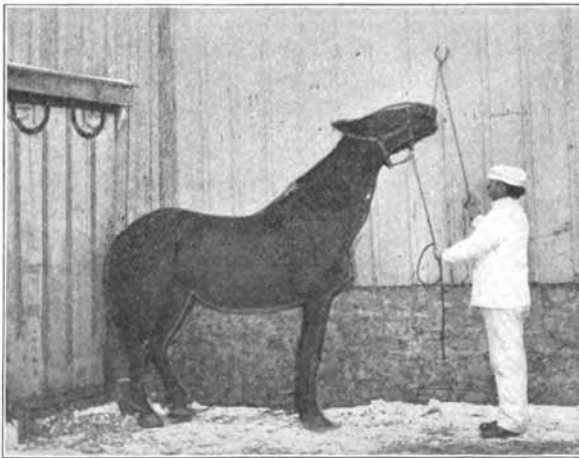
Wind Colic does not cause the animals to be in such intense pain as Spasmodic Colic, but in both cases they look around to their sides. There is pawing, stamping and kicking at the stomach; frequent getting up and lying down; rolling from side to side and oftentimes lying on the back.

Colic is usually an easy ailment to detect, and unless it is given proper and immediate attention it often terminates in rupture or inflammation of the bowels, in which case death follows.

TREATMENT.

Back the horse into a single stall and by the use of a Drenching Hook drench him (see cut) with a dose of Colic Cure. (See page 155.) Turn him into a loose box stall with plenty of bedding and give him an injection of four quarts of warm water (per rectum) by the use of a hose and funnel. Place a blanket on him. Give another dose of Colic Cure in from one to three hours if necessary, and apply a quarter of a pound of mustard thoroughly mixed with a little warm water, making a thin paste, which should be thoroughly rubbed onto the abdomen or belly. Apply lard over the mustard in 12 hours to prevent its blistering.

Always allow a horse with Colic to lie down if he so desires. Never walk, trot or exercise a horse with Colic. A horse that is supposed to be subject to Colic should have his teeth examined and be given a Physic Ball and Tonic several times during the year, as this will prevent the horse from having Indigestion and Colic.



HOW TO DRENCH A HORSE.

See How to Drench (page 88).

CONSTIPATION.

Constipation in itself is not a serious ailment, but frequently leads on to more dangerous conditions and should be prevented and overcome by the use of a Physic Ball (see page 156) and four quarts of warm water injections (per rectum) by the use of a hose and funnel. The animal must receive laxative food and regular exercise.

CORNS.

Corns are brought on by improper shoeing and bruises of the feet, and the treatment consists in removing the barring of the shoe, poulticing the foot with Antiseptic Poultice (see page 148), trimming out the diseased and bruised tissues and applying the Absorbent according to directions.

COUGHS.

A Cough is due to an irritation of the throat and is often brought on by taking cold or coming down with a catarrhal disease, such as Distemper, Influenza, etc.

TREATMENT.

Apply White Liniment to the throat from ear to ear, and give the Fever Paste (see page 152) as directed; in stubborn cases a Physic Ball should be given, as in some instances the cough may be due to an irritation caused by Indigestion.

CRACKED HEELS.

Cracked Heels may be due to several causes, such as an impure condition of the blood, stocking and swelling of the limbs, driving in cold, slushy mud, or snow water.

TREATMENT.

Give the horse a Physic Ball and follow with the Horse Tonic. (See page 154.) Wash the affected parts of the heels with warm water and soap. After they are clean and dry apply the Badger Balm. Avoid washing as much as possible. After the parts are once washed, then washing should be omitted entirely, as water has a tendency to irritate and aggravate the Cracked Heels.

DRENCH.

A drench means a liquid dose of medicine which is given to a horse by pouring same down the throat. While this may be a simple act, it however is accompanied by great danger, and a little knowledge and good advice may be very beneficial to the one who does the drenching.

Never drench a horse with a sore throat.

Never drench a horse through the nostrils.

HOW TO DRENCH.

Back the horse into a single stall. Fasten a Drench Hook (see page 166) to the

rafters just above the horse's head, by means of a rope place a loop around the front upper teeth and gently draw the horse's head up.

The medicine should be well shaken before giving. Drench the horse slowly, by giving him one swallow of the medicine at a time, allowing him sufficient time to swallow before pouring more medicine into his mouth.

A horse that is unable to swallow should have the medicine given to him in the form of a Powder or Paste, on the tongue, by the use of a spoon.

Great care should be exercised in examining a horse's throat to determine whether it is in a condition to be drenched or not. This can be determined by pinching the throat with the thumb and finger, and if by being pinched the horse will cough, then great care should be taken in drenching the animal.

CRAMPS OF JOINTS.

This is an ailment which is frequently seen in young horses, and when present will be noticed when an attempt is made to back the animal out of the stall. One of the feet will appear as if bolted to the floor. If you are able to back him out it will be with difficulty, and when you start him up he may be unable to lift that foot from the floor, but all of a sudden, in some cases, the limb will snap and crack and he will walk off sound, but on standing will experience the same trouble, which is invariably located in the hock joint, but is often mistaken for stifle trouble.

TREATMENT.

Apply White Liniment (see page 150) all around the hock joint.

CURB.

A Curb is an enlargement which makes its appearance back of the hock just a little below the joint of the hock and is usually due to a bruise or strain.

TREATMENT.

During the hot or inflamed stage the parts should be thoroughly poulticed with Antiseptic Poultice until all the inflammation has subsided, then apply the Lucky Four Blister (see page 157) according to directions. In stubborn cases it is well to alternate the Lucky Four Blister with Absorbent according to directions upon the packages. This treatment will remove curbs of every nature. The animal should not be worked or strained during the treatment.

DISTEMPER.

(See Catarrhal Fever, page 85.)

DIARRHOEA.

Diarrhœa is an unnaturally loose condition of the bowels, where the fœces or manure passes away in a liquid condition indicating a disturbance of the mucous membrane of the bowels. It may be caused by bad or irregular teeth, indigestion, worms and unwholesome feed.

TREATMENT.

Have the teeth examined and dressed if need be, and give liberal doses of Horse Tonic (see page 154), and dry feed such as bran and ground oats. Give the horse a reasonable amount of water, and it is better that the chill be taken off.

DROPSY.

Dropsy is a watery condition of the blood and is known by heavy swellings in the limbs and abdomen. The treatment consists in giving a Physic Ball and following with Horse Tonic. Give nutritious feed, and exercise.

DYSENTERY.

Dysentery is a watery condition of the bowel contents, similar to Diarrhoea, and is treated in the same manner.

ECZEMA.

Eczema is a disease of the skin and exists in various forms, but the most serious form of Eczema is known as Mange. This form is due to a parasite which is very hard to destroy, and the disease is equally hard to overcome, but all forms of Eczema and Mange can be permanently overcome and cured.

TREATMENT.

Give a Physic Ball and follow with the Horse Tonic (see page 154) internally. After the effects of the Physic Ball have passed away, the animal should be clipped (if the season will permit) and thoroughly scrubbed with soft soap and a solution of Germ Killer. After the parts become thoroughly dry the animal should be thoroughly rubbed with the Skin Ointment. This treatment should be repeated every few days until the disease is completely cured.

EYE INFLAMMATION.

Inflammation of the eye may be due to an injury or to moonblindness. The treatment consists in bathing the eye with warm antiseptic solution several times daily and

The animal should be kept in a dark stable during a very aggravated case of injecting into the eye after each bathing some of the Eye Lotion. (See page 149.) sore eyes.

FEVER.

A fever is an elevation of the temperature and is caused by a disturbance of one or more organs of the body, and the treatment consists, if taken in the early stages before the temperature rises above 103, in giving a Physic Ball and follow with the Fever Paste. (See page 152.) Bran mashes and a liberal amount of cool water should be given.

FISTULA.

A Fistula may occur on any part of the body, and the treatment for it is the same, no matter where it may be located. But it is more often located on the withers and is generally called Fistulous Withers. The treatment consists, when it first makes its appearance, in repeated applications of Antiseptic Poultice (see page 148) until the fever and inflammation have been reduced; then wash off parts thoroughly and clip off the hair and mane, and apply a good application of Lucky Four Blister. This may be repeated every two weeks, or until the enlargement has disappeared or been brought to

a head. In the latter case it should be opened at the lowest point and thoroughly drained, the operator making an incision from two to three inches long. The cavity then is to be thoroughly washed out with a solution of Germ Killer and the Healing Lotion (see page 153) injected once daily. In this manner any Fistula can be permanently cured.

FLATULENT COLIC.

(See Wind Colic, the treatment of which is the same.)

FLIES.

It is needless to say that flies are a nuisance to stock owners. However, they are not only a nuisance, but they are dangerous insects, and often are the means of carrying and spreading disease, thereby causing heavy losses to stock raisers and owners. They annoy horses to such an extent as to keep them in one continual fret and worry. It is impossible to keep a horse in flesh when thus continually disturbed.

Milking cows are often so disturbed by flies as to cause their owners serious loss, owing to the shortage of milk. It is for this reason that all horse and cow stables should be darkened during the fly season each morning, and the stables thoroughly sprayed with Fly Oil (see page 159). And this should be sprayed upon the cows while they are in the stable and a few minutes before milking time. When this is done the cow will quiet down to her natural condition, and will give her milk down freely and naturally, and will give enough extra milk to many times pay for the Fly Oil. It is for this reason that a good Fly Oil is an invaluable preparation to have on hand during fly season. "A word to the wise is sufficient."

FOALING.

The required time of gestation, or the period in which a mare carries her colt, is nine months, at which time special attention should be given the mare. Place her in a loose box stall with plenty of bedding; give her feed of a laxative nature; the drinking water should have the chill taken from it, and her bowels should be kept in a natural condition by giving her laxative food.

After the labor pains have appeared, it would be well to keep watch of her, and if she does not deliver her colt within a reasonable length of time—say, one hour—it would be advisable to make an examination. Upon doing so, if the colt be in a natural position, the nose and front feet are the first to be felt. If such be the case, the attendant may assist the mare in delivering her colt by pulling on the front feet. Any other position would indicate an unnatural condition of foaling.

When colt is born the navel cord should be tied two inches from the body with a string soaked in Umbilicure (see page 151), the navel cord should then be cut about four inches from the body. Umbilicure should be applied three times daily to the navel cord until it dries up and drops off. This will prevent the colt from becoming infected with navel diseases. Important in connection with this article is the article on Navel Diseases in Colts (see page 97).

FOUNDER.

Founder is a congested condition of the feet, and so affects them as to leave them in a diseased condition unless properly treated. An animal may be foundered by being overfed, by being watered or fed when in too warm a condition for receiving same, or by over-driving.

The first thing noticed will be an inability to move, especially their feet. They will stand with their hind feet pretty well forward and under the body, and if they are compelled to turn around suddenly, they will show evidence of great pain and lameness.

TREATMENT.

Bleed the animal by tapping the blood vessel in the neck. The seat of bleeding is about 12 inches from the angle of the jaw, and the operation should be performed by the use of a bleeding Flem on the left under-side of the neck.

The blood vessel may be raised by tying a string around the neck three to four inches below the point of bleeding. This should be drawn up rather snug. By so doing the blood vessel will fill rapidly with blood. The Flem should be placed and struck with a piece of heavy wood about 12 inches long. Always tap the blood vessel lengthwise. After you have let out about from two to four quarts of blood, the string on the neck should be loosened and a pin passed through both edges of the opening in the skin and a small string of mane wound around the pin in the form of a figure eight. This will prevent the animal from further bleeding.

Give the animal a Physic Ball and reduce the temperature with Fever Paste (see page 152). Keep the appetite up with Horse Tonic.

Good big applications of Antiseptic Poultice should be placed on each foot. They should be kept moist in front and behind by pouring water on them every few hours, and place a blanket on the animal if in cold, and a fly sheet if in warm weather. Give soft feed and plenty of water.

If the animal shows signs of soreness in the feet in the course of 15 to 30 days, an application of Lucky Four Blister should be made around the upper part of the hoof, and especially on the front feet.

GLANDERS.

Glanders is a contagious disease and is incurable. It is a very dangerous disease to handle. If a person's judgment is not good enough to detect a case of Glanders, or if the case is not sufficiently developed to prove beyond a doubt that it is Glanders, the test should be applied, which consists in taking several temperatures, then injecting a dose of Mallien into the skin; then taking a few temperatures afterwards and later, if the temperatures rise and do so above a certain number of degrees, it is evident that the horse has Glanders. Further particulars will be given on application.

GREASE HEEL.

Is a swelling of the legs and a breaking out of the skin, extending from hock or knee to hoof, and is more often due to a bad condition of the blood than anything else.

TREATMENT.

Give a Physic Ball and follow with Horse Tonic. Apply Badger Balm (see page 144) to all inflamed parts and in all severe cases apply Antiseptic Poultice over the Balm until the inflammation is gone, then continue with the Balm. Give the animal soft feed, such as bran mash, grass, plenty of water, and keep him out of mud.

Do not wash off the leg unless you have to, and if you do, use a solution of Germ Killer, as water alone has a tendency to aggravate the case.

HARNESS OR COLLAR GALLS.

Are brought on from a chafing of the parts by the harness or collars. The parts chafed will first become hot, sore and inflamed; later on a scab will form and if neglected when scab comes off, there is danger of a sore being left under which pus cavities often form and cause no end of trouble.

If they reach this stage it will necessitate opening of the pus cavities, and in this case requires from 20 to 30 days to heal.

TREATMENT.

In ordinary cases of Harness and Collar Galls, apply Healing Oil (see page 156); it will positively prevent and cure all Galls. It matters not at what stage they are in, if pus has collected, open up the sack and wash out the cavity with a solution of Germ Killer, then inject Healing Lotion.

HEAVES.

Heaves is a derangement of the blood vessels and air tubes of the lungs. The most common cause is Indigestion, or the animal may be out of condition. As soon as a horse gets out of condition there is great danger of an attack of Heaves.

TREATMENT.

Give a Physic Ball and keep the animal from eating from 12 to 24 hours, then give Horse Tonic to tone up the system and digestive organs, and follow treatment by giving a moderate amount of feed with Heave Powder (see page 153) in it. Give water sparingly, and a reasonable amount of hay. Dampen all the feed.

After you have given a Physic Ball, Horse Tonic and one package of Heave easily see how you have improved him, and if he is not entirely cured, continue with the Heave Powder until he is well, giving a Physic Ball every two weeks.

HIPPED.

The term "hipped" means the knocking down of the points of the hip bone. This can be done without injury to any joint, and for this reason the animal usually recovers from all lameness, but is always left deformed, though still useful.

TREATMENT.

Apply Badger Balm to all hot or inflamed parts around the hip until all heat, swelling and inflammation has disappeared. Then make an application of Lucky Four Blister (see page 157) between hip and stifle, every two weeks until the animal has fully recovered.

IMPACTION OF THE BOWELS.

Impaction of the bowels means a stoppage of the bowels and the most frequent cause is overloading the stomach and bowels with bulky feed, such as straw or over-ripe hay. Another cause is paralysis of the bowels. It is for this reason that salts or oil should not be given a horse in this condition.

You will know this trouble by noticing that the horse acts as if he had Colic. He will lie down, get up, perhaps pass a little water and a little manure, but only enough manure to deceive you. He will stretch himself, look around to his sides, and perhaps keep on eating.

TREATMENT.

Give a dose of Colic Cure and follow in three or four hours with a dose of Laxo-tonic (see page 145). Repeat the Colic Cure and Laxotonic every six hours, giving them at intervals of three hours. Give four quarts of warm water (per rectum) three times daily, by the use of the hose and funnel. If the animal be in great pain, one-fourth pound of powdered mustard, mixed with a little warm water to make a thick paste, should be applied to the abdomen or belly. Apply lard over the abdomen in 12 hours, to keep the mustard from blistering. A Physic Ball should not be given unless in the early stage of impaction.

INDIGESTION OR "OUT OF CONDITION."

This is a derangement of the stomach and bowels and is brought on by eating too much when the stomach is not in condition to digest feed. You will know this trouble by the horse getting out of condition. He will eat plenty, but will not do well. There will be a rough coat, lack of ambition, bowels either too dry or too loose.

TREATMENT.

Give a Physic Ball and follow with the Horse Tonic (see page 154). Repeat the Physic Ball every two weeks, and continue with the Horse Tonic until the animal has fully recovered, becomes fleshy, sleek, ambitious and able to do a good day's work. Give ground oats, bran and good tame hay, and see that he has regular exercise.

INFLUENZA.

Influenza is a Catarrhal affection of the air passages, usually of the head and throat, but if neglected the disease will affect the lungs. It is similar to Distemper, and the care and treatment is much the same.

TREATMENT.

If the animal be treated in the early stage of the disease, a Physic Ball should be given, but if the temperature is higher than 103, don't give a Physic Ball.

Give Fever Paste (see page 152) and apply the White Liniment to the throat from ear to ear.

Keep up the appetite of the horse by giving Horse Tonic. Keep bowels loose by injections of four quarts of warm water, per rectum, by the use of hose and funnel.

In very severe cases of influenza, one ounce (two tablespoonfuls) of good whiskey should be added to the Fever Paste. If there be loud breathing, apply Antiseptic Poul-tice to the throat. Disinfect stables with Germ Killer or Disinfectall, hanging sacks around the sick stall that have been dipped in the solution, three times daily.

INJECTIONS.

The usual method is to inject warm water into the rectum of an animal, by the use of the hose and funnel, and this is a very important thing to do in all ailments and diseases except where the bowels are already too loose.

An injection makes it possible and easy for an animal to empty and expel the contents of the rectum without straining enough to injure itself in any way. The amount of warm water used is from two to six quarts and is injected into the rectum by the use of the hose and funnel, placing the hose from four to twelve inches into the rectum, at the same time holding the funnel up as high as the hose will permit, and pouring warm water into it as fast as it will run into the animal.

KIDNEY DISEASE.

The chief work of the kidneys is to expel all impurities from the system, and if they fail to do this, you will soon have a sick animal, and you will know it by a stiffened gait on the hind parts, the horse taking very short steps and being stiff in turning, showing an inclination to stretch as if wanting to pass water. This is a very serious disease and must receive prompt and proper attention.

TREATMENT.

In the early stage of the disease give a Physic Ball and follow with the Kidney Cure (see page 158). Give warm water injections, bran mash, good hay and plenty of drinking water. All horses should receive Kidney Cure daily to prevent diseases.

LAMENESS.

Lameness is a disease or an injured condition of a joint, ligament, tendon, hoof or muscle of an animal, and can be located usually by heat, swelling, inflammation, enlargements, and lack of action in any part of the body or limbs. The signs of location are as follows:

Hoof lameness improves with exercise. In case of splint lameness, a horse walks as though sound, but trots lame. In shoulder lameness, a horse stumbles considerably.

Joint lameness is usually indicated by heat and swelling. Tendon lameness the same. In ligament lameness there is no swelling, no heat and there will be no recovery unless the trouble is located and treated. In ring bone and curb lameness there is always an enlargement present. Bone spavin lameness sometimes appears without enlargement. Animal starts off on the points of his toes, and warms out of it as he is exercised. Bog spavin or thoroughpin always shows an enlargement.

TREATMENT.

Apply Antiseptic Poultrice until all heat and inflammation is gone from the seat of the injury; then the parts should be clipped, washed, dried and Absorbent (see page 150) thoroughly applied in each of the following ailments: Ligament Lameness, Splints, Curbs, Ringbones, Bone Spavins, Bog Spavins, Thoroughpins, Capped Elbows, Capped Hock, Wind Puffs, Corns, and all unnatural Enlargements on the body or limbs.

DEEP SEATED LAMENESS.

The parts should be clipped, washed, dried and Lucky Four Blister (see page 157) thoroughly applied where the following ailments exist: Shoulder Lameness, Sweeney, Stifle Lameness, Hip Joint Lameness, Sprained Joints, Tendons, also Curbs, and all parts requiring good deep stimulating blister. Hoof lameness due to nail wounds, gravel or bruises, should be thoroughly poulticed with the Antiseptic Poultrice, and all cavities washed out with a solution of Germ Killer, after which inject Healing Oil (see page 156). Plug all holes in bottom of hoof with absorbent cotton dipped in Healing Oil to prevent foreign matter from getting into the wounds. The poultrice should be applied after the hoof is thus treated, as it keeps down inflammation and lessens the danger of Lock-Jaw.

LARYNGITIS.

Is an inflammation of the lining of the throat and is often accompanied by a swelling which causes the animal to breathe very hard. Unless proper care and treatment is given there is great danger of the horse smothering to death. It is in these cases that the silver tube, placed in the wind pipe by cutting a hole into it, is so often necessary.

TREATMENT.

Give Fever Paste. Apply White Liniment to the throat from ear to ear, and if there is hard breathing, apply the Antiseptic Poultice to the throat from ear to ear. Keep up appetite with Horse Tonic. Keep bowels open by warm water injections, disinfect stalls with solution of Germ Killer or Disinfectall.

LEUCORRHOEA.

This is a Catarrhal or inflamed condition of the mucous membrane or lining of the genital organs, and is a very dangerous disease if neglected. It often prevents mares from getting with foal.

TREATMENT.

Give a Physic Ball and follow with Horse Tonic (see page 154). Wash out the vagina with a solution of Antisepto, by the use of the hose and funnel.

LICE.

Lice are small insects which infest live stock and do a great deal more damage to stock than the average stockman realizes.

It is a positive fact that if a stock owner knew just how much untold agony, to say nothing of the loss of flesh, that lice cause, he would not sleep until he had done all in his power to destroy the restless pests.

TREATMENT.

Diolice should be thoroughly applied and dusted into the hair on all parts of the animal. (See page 162.)

LUNG FEVER.

It is also called Pneumonia and is inflammation of the lungs. It may be caused in various ways, but the most common cause is taking cold and being neglected.

A horse with Lung Fever may or may not have a cough. He will stand with his elbows turned out most of the time, and seldom ever lays down.

TREATMENT.

Apply White Liniment (see page 150) to both sides of the chest over the ribs and also the throat.

Give Fever Paste to reduce the fever. Give Horse Tonic to keep up the appetite. Give one gallon of warm water as an injection (per rectum) to keep the bowels open. Dip gunny sacks in a solution of Germ Killer or Disinfectall three times daily and hang them around the sick stalls to kill the germs which are always present.

The stall should be ventilated. Plenty of sunlight. Keep stall warm in winter and cool in summer. Place a blanket on the animal if needed. Keep the stall clean, well drained and use plenty of bedding. Give plenty of cold water, bran mashes and grass in season.

LYMPHANGITIS.

This is inflammation of the Lymphatic glands of the body or limbs, and is more commonly known as "Monday Morning Disease." Comes on from Sunday rest and high feeding. It is more often seen in the hind limbs than in the front ones, and is more liable to affect the left leg than the right.

TREATMENT.

Give a Physic Ball and follow with Horse Tonic (see page 154). If the fever be high, give Fever Paste. Apply the Badger Balm to all swellings of the limbs or body and rub it in thoroughly. Give soft feed, such as bran mash, grass in season, and lots of exercise when the animal is able to take it.

MANGE.

Mange is a skin disease which comes under the head of Eczema. (See page 90.)

MOON BLINDNESS.

This is a disease of the eyes, and it is also known as Periodical Ophthalmia. It gets both of the names from the fact that it affects a horse at regular periods and was formerly supposed to be controlled by the moon. It may affect one or both eyes at any time.

TREATMENT.

Remove wolf teeth, if any, by pulling them, instead of breaking them off. There is no treatment that will cure this disease, but improvement has been effected by giving the animal a Physic Ball and following with Horse Tonic (see page 154).

Bathe the eyes with a solution of Antisepto three times daily and then inject the Eye Lotion as directed, until all inflammation is gone. Keep animal in dark stable during the stage of intense inflammation.

MOUTH SORE.

If the animal's teeth need dressing, have them dressed and apply Healing Oil (see page 156) to all sore or inflamed parts. Change bits if necessary.

NASAL GLEET.

Is a Catarrhal Discharge from one or both nostrils and is often caused by a bad cold or Distemper.

TREATMENT.

Give a Physic Ball and follow with the Horse Tonic (see page 154). Apply White Liniment to the nostril or nostrils affected, as high up as to come even with the lower part of the eyes, and within three inches of the hole of the nostril. This treatment should be continued until the animal is entirely cured.

NAVEL DISEASE IN COLTS.

This is a disease that affects the navel cord, and this takes place oftentimes at birth, due to the part becoming infected by germs which not only cause the navel to

become sore and inflamed, but they enter the body at this point and cause a swelling of the joints of colts. This results in lameness and a gathering of matter or pus, and unless proper treatment is promptly given, the disease will cause a sloughing of the joints, and death will follow.

TREATMENT.

It is better to prevent this disease than to treat it. This can be done by applying Umbilicure (see page 151) to the end of the navel cord for several days immediately after birth.

TREATMENT OF THE DISEASE AFTER IT HAS CAUSED THE JOINTS TO SWELL.

Give Fever Paste (see page 152) internally and apply Badger Balm and Antiseptic Poultice externally. Keep colt from lying on damp ground or wet stalls.

NAVICULAR LAMENESS.

This is caused by continual pounding on hard surfaces, such as pavements, and the treatment is not very satisfactory. Removing a part or severing the nerves of the feet will enable an animal to do work for some time without limping, but there is great danger of the foot dropping off.

OPEN JOINT.

This means an injury to a joint to such an extent as to cause the joint water to flow out. The joint water forms as fast as it flows out, so as soon as the flow is stopped the joint fills up again with as much of the fluid as nature requires to lubricate the joints.

TREATMENT.

Clip off the hair and wash the joint and wound with a solution of Germ Killer. When dry, apply Lucky Four Blister to the entire joint, as per directions given on Blister. Apply Healing Lotion (see page 153) to the wound. Do not disturb the scab or wash the wound after the first washing. If the discharge of joint water does not cease in four days, one pint of the Antisepto Solution, which is made by dissolving one tablespoonful of Antisepto (see page 140) in a pint of water which has been boiled and cooled to blood heat, should be injected once daily into the joint until discharge ceases. Follow with Healing Lotion.

PARALYSIS.

This is a loss of power, both of motion and of sensation, but one may occur without the other. The kind of Paralysis which is most common is due to Azoturia or an excess of uric acid in the blood, and must be treated the same as Azoturia (see page 81).

PARASITES.

Is a term applied to a small living organism which lives on other animals, burrowing into the skin and producing irritation and a disease such as Mange in animals, or the Itch in human beings. For treatment see article on Eczema, page 90.

PARTURITION.

This is the act of giving birth to the offspring. The animal should be placed in a loose box stall and given plenty of bedding. After the mare has labored for several hours, she should be examined to see if everything is all right. If she is not, she should be given special attention. After colt is delivered, she should be washed out with a solution of Antisepto (see page 140) (two quarts), then place one pound of lard (in chunks) into the womb. Do this once daily until she has recovered.

PHARYNGITIS.

This is very much like Laryngitis and the treatment is the same. (See page 96.)

PENIS.

This is the genital organ of the male and should be given some attention, such as washing out the sheath with a solution of Germ Killer (see page 147) every sixty days, and if the penis be sore, apply Healing Oil.

PILLS.

Mean Physic Balls, of which all horses should receive no less than four each year, and at most, one every two weeks, until put in good condition.

Whenever the blood is out of order, the skin rough, or covered with pimples, or the animal has a staring coat, no gloss to it, or is unthrifty in every way, you will know he needs a Physic Ball and it should be followed with Horse Tonic.

PIMPLES.

Pimples are only an indication that the blood is out of order, and the proper method of treatment is to give a Physic Ball and follow with the Horse Tonic (see page 154), if the pimples do not disappear readily. Apply Skin Ointment to all parts affected.

PINK EYE.

(See Catarrhal Fever, page 85.)

PLEURISY.

Pleurisy is usually brought on by taking cold. It is an inflamed condition of the covering of the lungs and resembles Lung Fever. Give Fever Paste (see page 152) internally and apply White Liniment externally to both sides of the chest, also to the throat. Give warm water injections, per rectum, to keep bowels open, and care for the animal the same as you would in the case of Lung Fever (see page 96).

PNEUMONIA.

Is Lung Fever and the treatment is the same (see page 96).

POLL EVIL.

Poll Evil is a large, hot, painful swelling on the forward and upper part of the neck just between and back of the ears, and is usually caused by bruises or violence of

some form, such as jamming the head against the ceiling of the stable, or rearing up and falling over backwards, the result being the same, regardless of the cause. After the parts become hot, inflamed and swollen, pus or matter usually forms and, unless it is overcome by absorption, the cavities become filled with pus and later on break open unless they are opened before.

The treatment consists, when it first makes its appearance, in repeated applications of Antiseptic Poultice (see page 148) until the fever and inflammation has been reduced; then wash off parts thoroughly and clip off the hair and mane, and apply a good application of Lucky Four Blister. This may be repeated every two weeks, or until the enlargement has disappeared or been brought to a head. In the latter case it should be opened at the lowest point and thoroughly drained, the operator making an incision from two to three inches long. The cavity then is to be thoroughly washed out with a solution of Germ Killer and the Healing Lotion (see page 153) injected once daily. In this manner any Poll Evil can be permanently cured.

PURPURA HEMORRHAGICA.

This is an intense swelling of the limbs, head, and under the belly, including the sheath or udder. The swelling comes on slowly but steadily and must run its course, causing the eyes to close from the intense swelling.

TREATMENT.

Give a Physic Ball at once and give Fever Paste to reduce the fever. Give Horse Tonic to keep up appetite. Give warm water injections, per rectum, to keep bowels open and apply Badger Balm (see page 144), well rubbed in, to all swollen parts. If the heels crack, use Healing Oil and Healing Lotion—first one, then the other, as directed.

QUITTOR.

Is like a Fistula, only it is located in the foot, and is often caused by nail pricks, bruises or gravel in the foot.

TREATMENT.

Wash part with Germ Killer solution and Poultice the feet with the Antiseptic Poultice (see page 148) until most of the fever is gone, then inject Healing Lotion.

RING BONE.

A Ring Bone is an unnatural growth of the bone, which takes place at the pastern joints and is liable to appear on any foot, but generally on the hind foot.

TREATMENT.

In the early stages of Ring Bone, clip off the hair, wash the parts thoroughly with soap and warm water. When dry, apply Absorbent (see page 150) once daily with a little brush to the ring bone or any enlargement of like nature, and continue the treatment until all lameness is gone.

RING WORM.

Ring Worm is a skin disease and is due to parasites which live just beneath the skin and must be destroyed before the disease can be cured.

The treatment is the same as for Skin Disease and Eczema. (See Eczema, page 90.)

ROARING.

Roaring is a disease of the throat and is caused by a neglected case of Distemper. It is very hard, and in fact, almost impossible to cure this disease.

TREATMENT.

Apply Lucky Four Blister (see page 157) to the throat from ear to ear according to directions. Repeat every two weeks until at least four treatments have been given.

RUPTURE.

Rupture is a term generally applied to an injury to the tissues which hold the bowels in their natural position.

A rupture of this kind may appear in different locations, but the rupture which the ordinary person has to contend with, and the only one which he can treat and improve the condition, is a rupture in a suckling colt, where the bowels come down into the scrotum. This may occur at any time from the day of birth to full maturity. It will be detected by an unnaturally enlarged condition of the scrotum.

The treatment is to apply Healing Oil (see page 156) once daily to the entire scrotum until it regains its natural size.

SCALDS AND BURNS.

Scalds usually occur from having water applied to any part of the animal when it is too hot.

The most common way in which Burns occur, and the kind of burns that horse raisers have to contend with, are caused by the horse getting tangled up in a rope, either by being tied too long or staked out to grass. This is called a rope burn and if neglected, often results in a serious inflamed wound, which may leave a thick, diseased scar or ridge.

TREATMENT.

For either Scalds or Burns, apply the Badger Balm (see page 144), and if it be where a poultice can be used, apply the Antiseptic Poultice. This can be continued until all heat and inflammation has gone. Then this should be discontinued, but continue with the Badger Balm until the parts are healed.

SCRATCHES.

Scratches or cracked heels is an inflamed, irritated and diseased condition of the skin usually at the fetlock of either front or hind limbs, but more often the hind ones. If this be neglected, it is liable to terminate in what is called Grease Heel. Scratches may occur at all seasons of the year, but are more liable to come on in the spring of the year. This goes to show that in many cases they are due to a bad condition of the blood.

TREATMENT.

Give a Physic Ball and follow with the Horse Tonic. Wash the legs and feet off thoroughly with a solution of Germ Killer. See back part of book for remedies. The washing should not be repeated after the limbs are once clean. Then apply the Badger Balm, and if it be a very severe case, apply the Antiseptic Poultice until all heat and swelling has disappeared. Continue with the Badger Balm until the skin is healed.

The animal should be kept out of the mud and snow water, as all water and moisture is irritating to the skin when thus afflicted.

SHOE BOILS.

(See Capped Elbow, page 85.)

SKIN DISEASE.

Skin Disease comes under the head of Eczema (see page 90).

SORES.

There are various kinds of sores, some being superficial, and others deep seated. Both superficial or surface sores and deep seated sores or pus cavities may be caused by bruises, punctures, wire cuts, etc.

TREATMENT.

In all cases of sores, the first thing to be done is to cleanse them. This should be done with a solution of Germ Killer. If it be a deepseated sore, the cavity should be thoroughly syringed out with this solution, and then Healing Lotion should be injected.

If a surface sore, it should be cleaned in the same manner, then treated with the Healing Oil (see page 156). If proud flesh appears, apply Healing Lotion.

SORE THROAT.

Is an inflamed condition of the mucous membrane lining the throat, and it may be due to taking cold, inhaling smoke, or to Distemper or Catarrhal disease.

TREATMENT.

Apply the White Liniment to the throat from ear to ear for three or four days, discontinuing for a few days and resuming the treatment later if needed.

Give Fever Paste (see page 152) on the tongue. The appetite may be kept up by the use of Horse Tonic. The bowels should be kept open by giving four quarts of warm water, per rectum, as an injection, using a hose and funnel.

The animal should be allowed plenty of cold water and soft and nutritious feed, such as bran mashes; and flaxseed tea may be given freely.

SPAVIN.

(See Lameness, page 95.) (See Bone and Bog Spavin, page 84.)

SPEEDY CRACK.

Is similar to Scratches or Cracked Heel, and the treatment is the same (see page 101).

SPLINTS.

A Splint is a bony enlargement which develops on the (canon) or shin bone of the horse between the knee and hock, and the (fetlock) or ankle joint. They usually form on the inside of the limb but do occasionally appear on the outside of a limb

They vary in size from that of a hickory nut to a small kernel. They can usually be seen or felt very readily. Splint lameness has a peculiarity of its own, in as much as the horse is apt to walk perfectly sound and trot lame and the horse usually grows worse by exercise. Splints are usually caused by hard road work or injuries. Either will produce a growth of bone beneath the thin tissue paper like covering of a bone; it is this growth that produces lameness and the treatment of a splint consists in the application of absorbing ingredients such as are contained in Absorbent (see page 150). When this growth or enlargement is absorbed, it disappears and so does lameness if the animal is thus afflicted.

SPRAINS.

A Sprain is an injury to the joint, ligament, tendon or muscle, and is usually detected by heat, swelling, soreness or lameness. All heat, swelling and soreness should be overcome by applying the Antiseptic Poultice (see page 148) and if there be lameness after the heat and swelling have been relieved, the Absorbent or Lucky Four Blister should be applied.

STERILITY.

(See Barrenness in Mares, page 82.)

STRANGLES.

Strangles is the same disease as Catarrhal Fever or Distemper (see page 85).

STRING HALT.

Is an injured condition of the nerves of the hind limbs, and is known by an unnaturally high lifting of the limbs. This trouble is incurable.

A horse out of condition will show this disease more than one in a good, healthy condition, so the only thing to do is to get the animal in a healthy, strong condition. This may be done by giving Physic Ball and Horse Tonic (see page 154) until the condition of the animal is improved.

SUNSTROKE.

Is simply prostration from heat, and usually occurs in very hot weather.

The animal may be going along as usual, but will suddenly get dizzy, weak and sweat profusely, then suddenly stop sweating and begin to pant. His nostrils get large and he will hang his head, and it is at this point that he is liable to go down.

TREATMENT.

Cold water should be applied to all parts of the body and head by the use of a light spray or by sponging. This should be kept up until he cools off. Move him to a shady place, where he may get fresh air, and give him one tablespoonful of Fever Paste (see page 152) and 8 ounces of good whiskey as one dose, and follow every three hours with a tablespoonful of the Fever Paste and two ounces of good whiskey as one dose, until he recovers.

Give a gallon of tepid water, per rectum, by the use of the hose and the funnel. Allow the animal to drink tepid water, and as he recovers, give him bran mashes and soft foods.

SWELLING.

Swelling is a hot inflamed condition, and the treatment consists in giving a Physic Ball internally, following this with the Horse Tonic. Apply Badger Balm, well rubbed in, and if possible to use a poultice, use the Antiseptic Poultice (see page 148).

SWEENEY.

Sweeney is a shrinking of the muscles and is caused by an injury to the point of the shoulder; for this reason the hair should be clipped from the entire shoulder blade, and the point of the shoulder, and an application of Lucky Four Blister or White Lini-ment (see pages 150 and 157) to both the point of the shoulder and to the depression at the shoulder blade.

In many cases it is an advantage to use first one of these remedies, then the other.

The animal should receive daily exercise; sometimes a little light work may be beneficial, but heavy work is out of the question.

SHEATH.

The sheath is the cover of the penis of the male, and the only attention that is usually required is to occasionally wash out with soap and warm water, the collection of dust and dirt in the sheath, which sometimes produces bad results if neglected. It may cause portions of the skin to slough off, leaving raw surfaces, which come in continual contact with the balance of the unclean parts. If there be signs of soreness, the dirt from the sheath should be washed out at the point of the penis, and should be examined, as there is frequently a collection of cheesy-like material collecting just in front of the urethra, where there is a little blind sack that favors the collection of foreign matter. This gathering is commonly known as a bean. It should be examined and the sheath washed no less than four times per year. If there be soreness of any nature on the penis, the Healing Oil (see page 156) should be applied to the inner parts of the sheath.

SYNOVITIS.

This is inflammation of the synovial and joints, the parts of the joints which come in contact with one another. This is commonly known as inflammation of the joints, and may be recognized by heat, swelling and intense lameness. Bruises, slips or strains are frequent causes of synovitis.

TREATMENT.

Apply Badger Balm thoroughly rubbed into the parts of the inflamed joints, then apply the Antiseptic Poultice (see page 148). Continue this treatment until all heat and swelling have disappeared. If lameness continues, apply Lucky Four Blister according to directions, and repeat every two weeks until lameness is overcome.

TEETH (IRREGULAR).

All owners of horses should examine their horses' teeth and should be able to tell by examination whether they should be dressed or not.

The way to examine them is to back the horse into a single stall, remove the halter or bridle, and if need be put a neck strap on the animal, and by standing directly in front of the horse and reaching into the mouth, grasping the tongue and pulling it out and to one side with one hand, and lifting the sides of the cheeks with the other. In

this way you will be able to see the full set of molars or grinders. If they need dressing, the inside edge of the lower teeth and the outside edges of the upper teeth will be ragged, rough and sharp.

Sometimes in examining a horse in this manner you will find one or more teeth considerably longer than the others, in which case, or where the edges are sharp, the teeth should be properly dressed by a qualified veterinarian who thoroughly understands dentistry. In fact, all horses should be thus examined, and especially horses that are out of condition.

TENDON SORE.

When a horse has a sore or lame tendon and when inflamed so as to produce lameness, it should first be thoroughly rubbed with Badger Balm (see page 144). Then apply the Antiseptic Poultice until all heat and swelling have disappeared, after which remove the lameness by applying Lucky Four Blister as directed (see page 157).

TESTICLES.

Swollen testicles may occur as the result of bruises, kicks or stings, and the trouble frequently happens to stallions during breeding season.

Bathe parts with warm water, then apply Badger Balm, thoroughly rubbed in, and follow by the use of the Antiseptic Poultice (see page 148). This is done by placing a wide bandage around the belly, just in front of the hips, then another strip attached to it just at the point of the sheath, then brought up between the thighs and along the side of the tail and fasten to the other strip just over the loins or kidneys. In this manner a poultice may be applied easily, and its use is very important in such cases.

THOROUGHPINS.

Is an unnatural enlargement of the hock, and is indicated by a puff in front and outside of the hock, passing entirely through the hock. This trouble may happen to horses of any age, but the treatment is very much more satisfactory in young horses than in old ones, and is as follows:

TREATMENT.

Clip off the hair from all parts and wash with warm water and soap. A few hours later apply Absorbent (see page 150) to the puffs, both in front and at the side of the hock. In this manner all curable cases of Thoroughpins can be cured.

THRUSH IN HORSES' FEET.

Thrush is known by a dark gray, unhealthy secretion of matter oozing from the middle or either side of the frog of a horse's foot. This discharge, if neglected, is liable to eat its way through the sole of the foot, oftentimes involving the joints and sometimes causing intense lameness, swelling of the limbs. It is at this stage of the disease that blood poisoning is liable to set in and death occurs.

This disease affects both horses and mares, more often affecting the front feet of geldings or stallions and the hind feet of mares; this being due to the filth and moisture caused by the urine.

TREATMENT.

Thrush is to be treated by cleanliness—the removal of all direct causes and a

return of the frog to its normal condition. The diseased or ragged condition of the frog should be pared away and in severe cases the foot should be poulticed for a few days with the Antiseptic Poultice. The center of the frog and the grooves on either side are then to be cleaned and well filled with wads of cotton soaked in Germ Killer (full strength). The foot should be dressed in this manner once daily. If there be intense fever in the feet and swelling of the limbs, this will indicate that the horse requires internal treatment, and for this give a Physic Ball and follow with Horse Tonic; but in all mild cases of Thrush in the feet pack the frog and affected parts with wads of cotton soaked in Germ Killer (full strength) and you will overcome the disease.

TUMOR.

The only possible way for stock owners to remove Tumors is by use of the Absorbent (see page 150). If that should fail to accomplish the result, the knife must be resorted to.

ULCERS.

Are deep seated sores, usually of a very disagreeable character, occurring in any part of the body or upon the limbs.

TREATMENT.

Wash them out thoroughly with a solution of Germ Killer and apply Healing Lotion (see page 153). Most ulcers should be touched up with Absorbent to get them in a condition that they will heal.

URINE RETAINED.

The retention of the urine in mares may be easily overcome by passing a female catheter, which is a silver plated tube a little larger than a lead pencil and about twelve inches long, into the neck of the bladder, which is located on the floor of the vagina. But the retention of the urine in a gelding or stallion is a difficult matter to overcome, as an unexperienced person would be liable to have trouble in passing the male catheter, which is usually about three feet long. However, if there be retention in the mare or horse, a bottle of Colic Cure (see page 155) should be given, as this contains ingredients which act upon the urinal organs, and by so doing may overcome the necessity of drawing the water.

WARTS.

Are little tumors which often appear very suddenly on any part of the body or limbs, angles of the mouth, corners of the eyes, tips of the ears, etc. For this reason they are difficult to remove, and great care should be taken in their removal. The only safe and reliable method is to apply Wartine (see page 151) to warts of all kinds, until they are removed. It requires a longer time to remove some kinds of warts than others. The large warts should be pulled out by the roots with the fingers or forceps, and then apply the Wartine to the wound thus made.

WIND BROKEN.

This trouble is very much like Heaves and should be treated in the same manner. (See Heaves, page 93.)

WIND GALLS.

Wind Galls are sometimes called Wind Puffs, either term being correct. They are enlargements of the synovial bursa, and usually appear on the fetlock joint of the front or hind limbs, but more often on the hind limbs.

TREATMENT.

Clip off the hair over the wind gall, wash the parts thoroughly with warm water and soap, and in a couple of hours apply Absorbent. Do this once daily until the trouble disappears. Do not repeat the washing.

The animal will improve more rapidly if kept from doing hard work, and kept off the pavement.

WIRE CUTS.

Wire Cuts are usually caused by wire containing barbs or sharp prongs. These barbs or prongs are usually in a rusty condition, and for this reason a wire cut is considerably more dangerous and harder to handle than most any other wound; but wire cuts may also be produced by smooth or woven wire, but the animal, in such cases, must come in contact with such wires with considerable force. When this occurs the bruise is usually as serious as the cut, and both have to be properly treated in order to obtain the best results.

Barb wire cuts are also very dangerous for the reason that when the animal comes in contact with a fence with sufficient force to produce an ugly gash there is great danger of the sharp, rusty barbs passing considerably deeper into the flesh than the wire itself, and by so doing oftentimes penetrate the joints in that vicinity. When this occurs you have to contend with both a wire cut and an open joint. The open joint means the escaping of synovia, or joint water, from the joint.

TREATMENT.

All wounds should be thoroughly washed with a solution of Germ Killer (see page 147). When the skin and muscles are cut to more than two or three inches in length it is advisable to stitch up with silk or linen thread, bringing the skin together. This may be done successfully in several ways, but it is advisable to make stitches about one-half or one inch apart, passing the needle through both edges of the skin, then cutting the thread sufficient in length to be tied in a hard knot. These are called interrupted sutures.

Another method would be to begin at one end of the cut, passing the needle through the skin and back through the end of the thread, then to the opposite side of the wound, and in this manner drawing the edges of the skin together, sewing the entire wound without cutting the thread. This is called uninterrupted sutures. The entire wound should then be dressed with Healing Oil once daily. Daily washings of the wound with Germ Killer solution and Healing Oil is necessary. After the stitches are removed the wound may be washed once daily with Germ Killer solution. Apply Absorbent with a small brush to the wound itself, using Healing Oil to keep the skin moist. In this manner any wound may be treated with success, regardless of its size.

WORMS.

There are several classes of worms, but the same treatment applies to the various kinds.

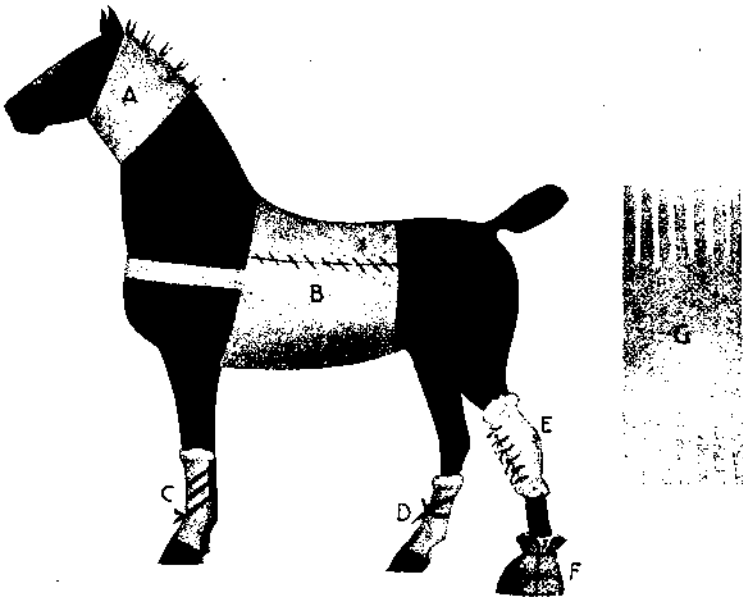
It is a very important thing to rid your horse of worms and keep the animal from having them. In order to do this a package of Worm Powder should be given. It should be followed with a Physic Ball, which expels all destroyed and stupefied worms.

In connection with this treatment, two to four quarts of Germ Killer (see page 147) solution, half strength, should be given (per rectum) as an injection by the use of a hose and funnel, two or three times per week. This will rid the rectum of the little pin worms, which are sometimes very hard to be gotten rid of. This treatment can be repeated if necessary.

WOUNDS.

There are many different kinds of wounds and are caused in different ways. Most wounds are caused by external injuries, while others may be caused by improper condition of the blood.

Wounds of all nature, both surface and deep seated, should be washed with a solution of Germ Killer; after they are thoroughly cleansed by injecting this solution into the cavity, use both Healing Oil and Healing Lotion alternately.



METHODS OF APPLYING ANTISEPTIC POULTICE.

- A—Throat Pad.
- B—Pneumonia Jacket.
- C—Fetlock Pads.
- D—Fetlock Pads.
- E—Hock Bandage, Manytail.
- F—Poultice Bandage.
- G—Manytail Bandage.

Apply and inject into the following deep seated wounds, and into Abscesses and Pus and Fluid Sacs, after they have been opened, such as Poll Evil, Fistulas, Withers, Capped Elbow, Capped Hock, Distemper, Abscesses on any part of the body, open collar or harness galls, Blood Blisters (or bruises), often seen at the point of the breast bone,

abscesses of the udder, punctured or lacerated wounds, such as are often caused by barb wire, tin, glass, nails or slivers; sore feet due to rope burns, wounds left after removing warts.

It is a difficult and important thing in all deep seated wounds to keep proud flesh from forming, and to cause the wound to heal nicely without a scar. This can be done if the above directions are clearly and carefully followed.

GERM KILLER Cleanses the wound.

HEALING LOTION prevents proud flesh.

HEALING OIL heals the wound.

See back part of book for these medicines.

Use Healing Oil for superficial or surface wounds, such as Collar Galls, Harness Galls, Cracked or Inflamed Skin, Cracked Heels, Speedy Cuts (or Scratches), bruises or irritated Skin, such as is often noticed on the knees, ankles, hocks, and hips from lying on cement or rough floors without much bedding. Sore mouth, both around the mouth and inside, bites of insects, poisoning or inflamed condition of the skin, and all superficial irritation of the skin.

Healing Oil should be used freely on instruments and hands of operator, also applied to the scrotum of all live stock castrated, such as calves, colts, lambs and pigs.

Healing Oil is invaluable to veterinarians or to parties who make a business of castrating stallions, bulls, boars and rams, as it will prevent infection and blood poisoning in all surgical operations.

HORSE OWNERS GIVE THEIR EXPERIENCE.

Dr. David Roberts' Absorbent Saves Valuable Race Horse.

DR. DAVID ROBERTS,
Waukesha, Wisconsin.

MILWAUKEE, Wis.

DEAR SIR:—Electric Maiden, 2:13½, was afflicted with two large goitres on her neck. I had great fear, and in fact had made up my mind, that she was ruined as a race horse on account of these unnatural growths, but upon learning that you had an Absorbent specially prepared to remove unnatural enlargements from the body and limbs of a horse, I was determined to try it, so I purchased one bottle and applied it according to directions, and in a remarkably short time it reduced the enlarged glands to their natural and normal condition.

I consider that your Absorbent has done more than I ever expected of any remedy. I take great pleasure in recommending this valuable remedy to other horsemen.

Yours, truly,

T. J. DUNBAR,
Milwaukee, Wis.

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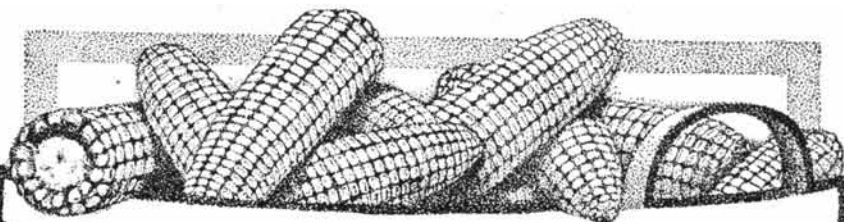
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DR. DAVID ROBERTS,
Waukesha, Wisconsin.

DEAR SIR:—At one time I was superintendent and manager of the Captain Pabst stables in the city of Chicago. Later I conducted a livery business at the Aldine Square Livery on Vincent Avenue. At times I had as high as ninety head of boarding horses, and as a rule each owner or family employed their own veterinarians and used different veterinary remedies in the care and treatment of their animals. This necessitated the calls of many different veterinarians and the use of a great many different veterinary remedies, and it gave me a good opportunity to witness the different methods of treating animals, and the most interesting of all things was to watch the results of different remedies, such as Condition Powders and Colic Cures, and with this experience I must say of all the Colic Cures I saw administered or administered myself to these different boarders, that Dr. David Roberts' Colic Cure has, in my opinion, saved more horses and brought about better results than any that I have witnessed or experienced, and I take pleasure in recommending your Colic Cure for all forms of colic.

I have had considerable experience with your Blood Tonic, and like it very much and can highly recommend it for all horses out of condition.

K. C. DOUSMAN,
Manager of the Live Stock Dept. of the Wisconsin State Industrial School.



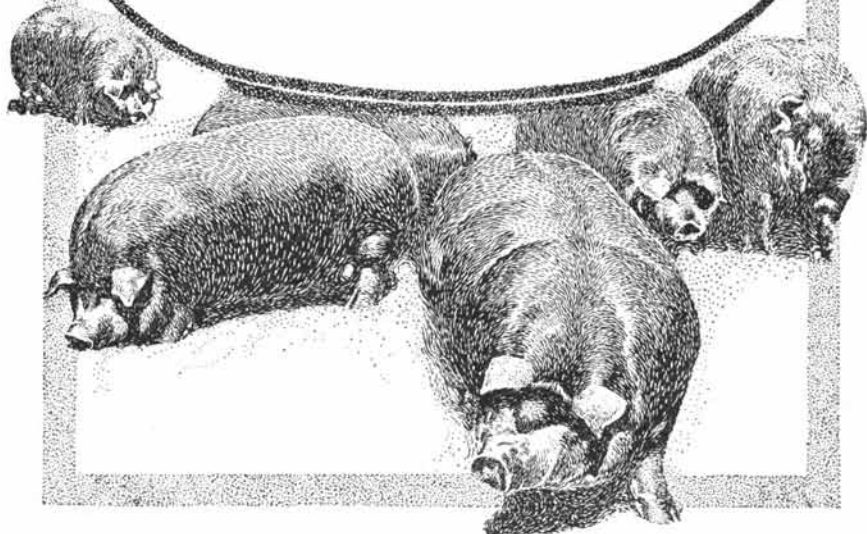
SWINE

Care and Management of Swine.

Selection—Feeding—How to get Best Results—
Gestation—Farrowing.

Symptoms and Treatment of Swine Diseases.

Miscellaneous Information.



Care and Management of Swine

SELECTION.

No money can be made by selecting a half-wild breed of hogs. Nor can success be achieved by selecting a good breed and starving the hogs or allowing them to shift for themselves. Hogs of the improved breeds are not so well able to take care of themselves as those of a half-wild breed, but when well cared for, will pay fifty per cent more profit than the other breed, for the grain fed. This is because they are more quiet and assimilate their food more perfectly.

However good the breed may be, care should be taken in the selecting or coupling of animals, otherwise degeneration of the offspring will result.

In the selection of stock for breeding, look first to the constitutional vigor. Without this, no matter what the beauty of form may be, disaster will come to the herd. Next examine the form, with regard to what you require. Then comes the question of early maturity and easy fattening qualities. In all farm animals tractability and quietness of disposition are essential. In swine this is especially so, as on the disposition of the animal largely depends the quality of fattening quickly and easily.

FEEDING.

The question of feeding swine comes under two heads, viz., that of feeding swine for breeding purposes and feeding for fattening only.

In feeding the breeding animal attention should be given to feeding for a strong constitution, a more active animal, and perfect health. True economy in this will dictate that they have the warmest possible shelter in winter and that they be kept cool in summer, with some place where they can escape from insect enemies. They should have range sufficient for them to exercise their instinct in rooting for such underground vegetation as their natures may require. This promotes health and strengthens their constitution.

These animals which are intended for fattening (and which are the very great per cent. of swine in the country), and whose lives do not extend to beyond fifteen months at most, are fattened, ready for sale, within ten months, and do not require this range and exercise.

If the breeding stock have been kept healthy they should transmit health to the offspring, giving them a strong constitution on which to build.

The young pigs should be weaned when about six weeks old, allowing them plenty of skimmed milk and buttermilk, mixing at seven or eight weeks old a fair portion of corn-meal mush, or, better still, light wheat and rye screenings ground together. Give them grass also as soon as they will eat it, and at three months old they may be put on clover. In addition to clover, give the young pigs all the milk and other slops of the house, and also give what corn they will eat. The older pigs will do well on clover and corn without the slops. The summer and early fall is the best season for fattening hogs. The gain during this time will be more rapid than at any other season. In the late fall, winter and spring the hogs should be housed in dry, warm sheds or barns.

The fact should never be overlooked that it requires a certain percentage of the food to supply daily animal waste. The young animal converts into flesh more of the food given than a full grown one; no matter how long the animal is kept, the daily waste goes on constantly. True economy is therefore to feed strong from birth and keep them growing as fast as possible. In this way you shorten the feeding period and get

them to market quickly. Do not neglect the hogs. Feed them regularly and often enough so that they will not overeat, as this is apt to cause trouble with the hog as with the human being.

Further, see that they have plenty to drink. Neglect to furnish abundance of pure water is a common source of loss and favors the outbreak of disease. Impure and germ laden water invites disease.

Hogs which are being fattened are not given their natural exercise, neither are they at liberty to root in the ground, where they could get the roots and herbs necessary to their digestion. They are, therefore, on account of their confined condition, liable to contract diseases. To aid their digestive organs and supply them with the proper ingredients to aid in digesting and assimilating their food, they should be given a small amount of stock food each day by mixing Dr. David Roberts' Condensed Stock Food with linseed meal and giving this to them in their feed.

HOW TO GET BEST RESULTS.

The care of young hogs is important in getting the best results, and "best results" are what every one is striving for. After you have used care in selecting and feeding your hogs, do not lose the benefit of it by not properly caring for them.

A boar will be ready for service when six or eight months old, but it is better to wait until he is about ten months of age at least. The sow is capable of breeding at seven or eight months old. However, it is better to wait until she is ten or twelve. One litter of pigs per year is enough for the average sow, although some will raise two. If the sow has a warm place for farrowing, the earlier in the season the pigs are produced the greater will be the profit from them.

CASTRATION.

Pigs should be castrated at from two to three weeks old. Never delay it later than the age of four weeks. This operation should not be performed in cold, damp weather.

Give your hogs the best of care and attention, for without these the finest bred hogs in the land will soon degenerate and become only scrubs.

FARROWING.

The sow should have a quiet, dry, warm place and plenty of bedding. Rich food should not be fed for a few days before and after farrowing.

GESTATION.

The average period of gestation in a sow is four months. This varies sometimes several days. Whenever you have a good breeding sow keep her as long as you can, as young sows are often bad mothers. A sow will remain a good breeder for about eight years, unless she becomes overloaded with fat. This should be guarded against

DISEASES OF SWINE

Diseases of swine are usually classed as infectious and contagious. The infectious form is known as Epizootic Catarrh. The contagious form usually appears as Hog Cholera, or Pneumœnteritis.

In the care of swine the *prevention* of disease is of the utmost importance. They

are indeed subject to comparatively few ailments; but these few are generally of the most serious kind. In such cases the great difficulty is in administering the medicine, as the animals are usually too sick to take it in their feed. For this reason it is much more important to keep hogs in a healthy condition, and prevent them from having diseases than it is to treat them after they have been taken sick.

ABORTION IN SOWS.

Abortion in sows may be divided into two forms, infectious abortion and accidental abortion; either one is a loss and a detriment to the stock owner. It is pretty thoroughly understood that the infectious form is the one which produces the greatest loss. Accidental abortion in sows may be brought on by injuries usually received by sows heavy with pig passing to and from pens or pastures in which there might be sills or pens or boards on gates which they are compelled to either jump over or drag themselves over in this heavy pregnant condition. Infectious abortion may be brought on by breeding sows having a weakened or catarrhal condition of the genital organs to a boar used on all sows. If the boar becomes infected he is then in a condition to infect all sows bred to him.

The treatment for infectious abortion in sows consists in the giving of Breeding Tonic (see page 141) and washing the genital organs of both sow and boar with a solution of Antisepto (see page 140). The pens should be thoroughly disinfected with Disinfectall.

DIARRHOEA.

Small pigs are frequently taken with diarrhœa, in which case the pens should be disinfected by thoroughly using the Disinfectall, after which Calf Cholera Remedy (see page 143) should be added to a little sweet milk as directed and given to them.

HOG CHOLERA.

While there are two forms of Hog Cholera, both are due to germs and the treatment is the same for each. The bowels of the animals may be loose or they may be constipated. In either case the Hog Tonic acts as a regulator, and should be fed the year around.

To prevent the diseases to which swine are subject Hog Tonic (see page 160) should be given according to directions. To overcome such diseases as Hog Cholera, the Hog Tonic should be given in a little larger doses, and the pens, floors and in fact everything pertaining to the hog-pen should be thoroughly disinfected by the liberal use of a solution of Disinfectall (see page 164). Gunny sacks should be dipped in this same solution and hung around the pens.

If one or more animals are attacked, the ones that are apparently well should be removed at once to another pen and the infected pen should be disinfected. In all cases where well hogs have been removed, the balance of them should be kept in a well ventilated, dry pen, and receive the best of care, including medicine, wholesome food, and pure water. If any more of them get sick the hogs that have not yet shown signs of sickness *must* again be removed to another pen, and so on until the disease has been controlled.

THUMPS.

Is an ailment due to contraction of the diaphragm and often affects the heart, and is more often noticed in pigs which are afflicted with indigestion.

Treatment consists in giving Hog Tonic to overcome indigestion. (See page 160.)

WORMS.

For worms give Hog Tonic or Worm Powder (see page 149) according to directions.

LICE ON HOGS.

The hogs should be thoroughly washed with Disinfectall (see page 164), one to two ounces to a gallon of water. Older hogs can stand it a little stronger. After they have been thoroughly scrubbed with this solution, and a few applications of Diolice have been thoroughly sprinkled in, you will have no further trouble with these pests.

SHEEP

History.

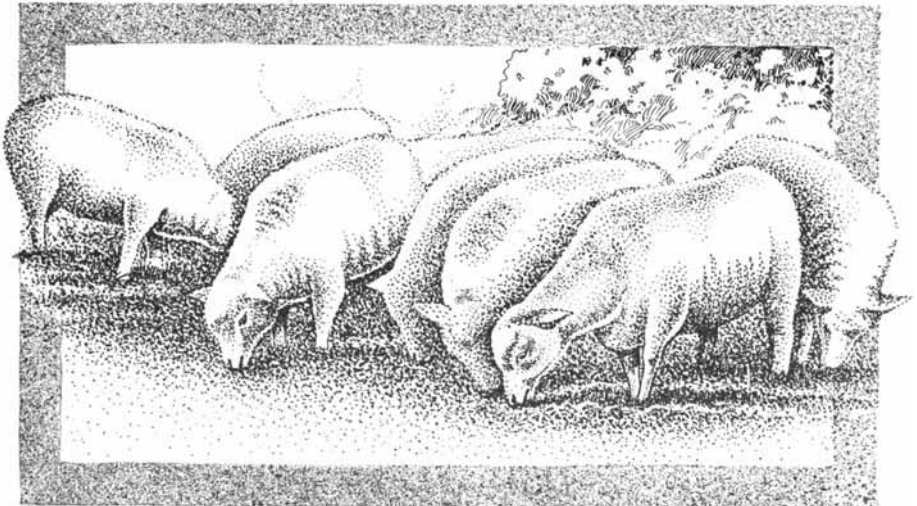
Care and Management of Sheep
Selection—Feeding.

Breeding Age—Gestation—Coupling—Lambing—
Rams—Castration—Docking—
Tagging—Shelter.

Prize Winning Lincoln Sheep Owned by
Dr. David Roberts.

Diseases of Sheep—Symptoms and Treatment.

Miscellaneous Information.



History

Domesticated sheep were first introduced on the American continent by Spanish discoverers and conquerors. On the second voyage of Columbus to the new world he brought with him some animals with which to stock the island of Hispaniola, among them were some sheep. His live stock was landed about the middle of December, 1493, at Isabella, where was founded the first Christian city of the new world. The vessels that followed from Spain from time to time brought supplies for the Colonies, including in their cargoes sheep which were landed at Hispaniola and Cuba. From these islands sheep were carried to the Isthmus of Panama.

On Cortes' return from Spain to the City of Mexico in 1530, misunderstandings arose between him and the Magistrates, and he left the Capitol, taking up his residence in the City of Cuernavaca, on the southern slope of the Cordilleras overlooking a wide expanse of country. Here he devoted himself to agriculture and the improvement of his estate. Among other live stock, he imported large numbers of Merino sheep, which flourished and increased rapidly on the abundant pastures in the country around Tehuantepec. From these two localities, Panama and the City of Cuernavaca, went forth sheep in large numbers. From these Spanish sheep, originated the immense herds in Mexico, New Mexico, Utah and Texas.

Sheep were introduced into the Eastern States by the early settlers, and much attention the importance of increasing the number of sheep and improving them by select-difficulties to overcome in caring for them, the principal one being that of protecting the sheep from wolves which abounded in that country in its early settlement. With the approaching of the Revolution more attention was paid to the raising of sheep. A feeling of independence was felt throughout the country, and showed itself in the increase of flocks, that the domestic manufacture might be carried on, and these was an increased demand for homespun garments from those who had usually worn the finer products of the British looms. The press of the country urged upon the population the importance of increasing the number of sheep and improving them by selecting the best and disposing of the poorest, and one who continued to wear a coat made of English material was not considered a patriot.

The Revolutionary War caused a backward step in the character of the sheep at that date, and also retarded the increase. As large numbers of the citizens were in the army, the flocks were neglected, and many of the sheep were destroyed by the armies. Upon the close of the war many breeders endeavored to improve their flocks by importations from abroad, as well as by giving those which they still had better care and attention. Much was done toward improving the sheep by better care and attention, but as England was too jealous to permit her improved sheep to be exported for the purpose of improving the sheep of the United States, she passed stringent exportation laws which practically prohibited the exporting of any sheep from England. Although means were found for evading this law, yet the number which the citizens of the United States succeeded in importing was but few, and left but a small market upon the native flocks.

George Washington, after the close of the Revolutionary War, was the first to improve the breed of his native sheep. He usually kept a flock of from seven to eight hundred sheep, and paid particular attention to their care and breeding, fully realizing that to get the most income from his flock they should be kept up to as high a standard as possible. From the time of the Revolutionary War the sheep industry has gradually increased, though it has oftentimes met with reverses of different kinds.

Care and Management of Sheep

Constant attention is necessary in the care and management of sheep. They are timid, without self-reliance, an easy prey to dogs. The necessity of keeping them in large flocks causes them to be especially liable to contagious and epidemic diseases. This care and attention should be given from the time the lamb is born. Oftentimes a little attention to a young lamb which is weak will enable it to take on a robust constitution and become one of your best sheep.

BREEDING AGE.

The proper breeding age for sheep is two years, and may continue until ten years old. From the age of three to eight years the best lambs will be produced.

CASTRATION.

Lambs should be castrated at from two to four weeks old.

COUPLING.

November is the season for coupling, but if breeding for mutton or wool it may be later than this, as the lambs will be better if not dropped until after the time for grass. If the object be to sell lambs, the earlier in the season they are produced the more money they will bring.

DOCKING.

This should be done as soon as they recover from castrating, generally about three or four days afterwards. This should be done with a single stroke of a sharp knife, care being taken to sever the tail at a joint. The skin of the tail should be drawn to the body so that the end will cover the stub. Allow the flock to lie down to keep quiet so that they may lose the least amount of blood possible.

FEEDING.

Sheep eat a variety of vegetation other than the true grasses and will pick a living on pastures where other stock would starve. They can be turned into rough pastures and where brush is growing and will enjoy eating the nutritious shrubs, brush and tufts of grass, in this way helping to clean up the land while getting a good living. The feeding of grain and other feed to sheep should be taken up early enough in the fall so that they will not fall off in flesh before going into winter quarters. A good allowance of corn, oats and bran should be fed, together with plenty of good clean hay, clover being preferable. There should also be plenty of good clean water to drink. A trough with salt in should be provided so that the sheep may get it at will.

The general diseases of sheep are, as follows:

Distemper or Epizootic Catarrh, Indigestion, and Paralysis or Stoppage of the Bowels. These are the forms of disease that are the most troublesome, and need the most prompt attention.

GESTATION.

Ewes carry their lambs on an average of 152 days. This time may vary a few days.

LAMBING.

At lambing time the ewe should be provided with warm quarters so that the lamb may dry off and take the teat as soon as possible. Ewes are very apt to become indifferent to a weak lamb.

RAMS.

There should be one ram for each one hundred sheep or less. In the beginning of the season do not let the ram serve more than two or three ewes a day, increasing the number as necessity demands. As the season draws to a close, restrict him again, as an exhausted male cannot get strong offspring.



ONE OF OUR PRIZE-WINNING LINCOLN SHEEP.

Dr. David Roberts Veterinary Co. exhibited a bunch of Lincoln Sheep at the following State Fairs, Wisconsin, Illinois, Missouri, Minnesota, Indiana, Iowa and Kentucky, and won 57 (fifty-seven) prizes.

6 Championship prizes,
32 First prizes,

18 Second prizes, and
1 Third prize.

SELECTION.

In the selection of sheep for the foundation of a flock the first question to be settled is whether you are going to breed principally for wool or for mutton, and the next is the question of what breed to adopt. In deciding both of these questions your own inclinations should be considered, for you are apt to be more successful when your own inclinations are followed, as more interest will be taken. It is also advisable

in deciding these questions to study up on good authorities the sheep industry and also to seek the advice of some well posted sheep raiser who has had experience in handling sheep.

After these questions have been settled, the selections of the individuals follow. In this the same as with other stock, only strong, healthy, vigorous animals should be used for breeding. When you succeed in raising a particularly fine animal, one which shows the best points, keep that animal for your own use in breeding and dispose of some not as good in quality. By following this rule you will soon have a fine flock of vigorous and healthy sheep.

SHELTER.

Sheep barns or sheds need not be expensive structures, as it is only necessary to provide shelter that will keep out wind and water, and at the same time admit of proper ventilation. About three to three and one-half square feet of shed room should be allowed for each sheep. Sheds opening to the south are preferable, as they provide the most protection.

By giving your sheep such care and attention as they need, together with good feed and breeding, they will produce wool and mutton of the best quality, and in large quantities, and be a flock in which their owner will take much pride.

TAGGING.

This is important and should be performed as early in the spring as possible, certainly before the sheep are turned to grass.

DISEASES OF SHEEP

DISTEMPER.

In Distemper, there is a slight watery discharge from the nostrils and eyes—there is a depression and more or less loss of appetite. The breathing is not changed unless the bronchial tubes are affected; the animals seldom cough. At the end of a week, unless the animal gets relief, the discharge from the nostrils becomes thick and pus like, and sometimes tinged with blood. The eyes are half closed and the lids are gummed with a yellow secretion. There is loss of appetite, and the animal will die unless promptly treated.

TREATMENT.

Immediately upon noticing the first animal affected with Distemper, the entire flock should promptly receive Sheep Tonic (see page 146) as a preventive treatment. The Sheep Tonic should be thoroughly mixed with their salt, and placed in a sheltered trough, to which they may have free access. No salt should be given in any other form during the treatment. A solution of Disinfectall (one oz. to a gallon of water) should be used to sponge out their eyes and nostrils. The sheds should be thoroughly disinfected (2 oz. of Disinfectall to a gallon of water). Gunny sacks dipped in this solution should be hung around through the sheds, and a sack half full of shavings saturated with Disinfectall (full strength), and hung over the sheep, is of great benefit in such cases.

GRUBS IN THE HEAD OF SHEEP.

This is caused by the eggs of the gadfly being deposited in the nostrils of the sheep in July and August. From the nostrils they find their way (in a maggot form) through the sinuses, causing much pain. When the gadflies are seeking the sheep, the animals will crowd together with their noses to the ground stamping violently at times and will run from one place in the pasture to another. When the maggots reach their resting place they attach themselves by their hooks and are easily dislodged.

TREATMENT.

Treatment consists of an operation which none but a competent veterinarian should attempt, and as this is not practical excepting upon valuable sheep, it is for this reason that a more simple and cheaper treatment is required, which consists in giving the sheep which are usually in a nervous, run-down condition, the Sheep Tonic (see page 146), and the dipping of gunny sacks and hanging them just above the heads of the sheep and thoroughly spraying the sheds with a strong solution of Disinfectall.

INDIGESTION.

Give Sheep Tonic according to directions and medicate all salt given.

INTESTINAL WORMS.

The presence of intestinal worms is seldom known to the ordinary observer, until after the death of a sheep. They can be detected by a post mortem examination. If worms are found in this one animal, the presumption is good that other sheep are seriously infected.

TREATMENT.

Mix the Worm Powder thoroughly, according to directions, with their salt, and place in sheltered troughs where they may have free access to same. They should not receive salt in any other form.

LUNG WORMS.

These worms are usually found in the wind-pipe, or bronchial tube, and sometimes in the lungs. They are small, thread-like, and long.

There will be a husky cough, rapid breathing, loss of appetite and flesh. The sheep will rub their noses on the ground. There may be dysentery, with a bad smelling odor.

TREATMENT.

Give the Worm Powder according to directions, in the salt or in a little feed. Disinfect the sheep pens thoroughly with a strong solution of Disinfectall (2 oz. to a gallon of water). Gunny sacks dipped in this same solution should be hung around the pens, and a half sack of shavings, saturated with Disinfectall (full strength), should be hung around at different points, over the sheep. The breathing of this medicated air destroys the worms. The sheep should receive good, nutritious feed, both during and after the treatment.



POULTRY

Care and Management of Poultry.

Feeding for Eggs.

For Fattening Poultry.

Diseases of Poultry—Symptoms and Treatment.

Valuable Poultry Pointers.

Care and Management of Poultry

STANDARD WEIGHT.

	Cock	Cockerel	Hen	Pullet
	lbs.	lbs.	lbs.	lbs.
Light Brahma	12	10	9½	8
Dark Brahma and All Cochins.....	11	9	8½	7
Langshan.	10	8	7	6
Javas and Plymouth Rocks.....	9½	8	7½	6½
All Wyandottes	8½	7½	6½	5½
American Dominique	8	7	6	5
Bull Orpingtons	10	8½	8	7
Minorcas and Spanish.....	8	6½	6½	5½
Andalusians.	6	5	5	4
Rhode Island Reds.....	8½	7½	6½	5

SELECTION OF BREEDS.

For meat: Brahma, Cochins and Langshans.

For general purpose: (Meat and eggs combined.) Plymouth Rocks, Wyandottes, and Rhode Island Reds and Orpingtons.

For eggs: Leghorns, Minorcas, Hamburgs or any of the smaller active breeds.

CARE AND MANAGEMENT.

To be on a paying basis, poultry must be properly managed. This latter clause covers many essentials; viz:

1. Suitable quarters.
2. Healthy conditions.
3. Proper feed.
4. Correct feeding.

LOCATION OF POULTRY HOUSE.

The Poultry House should always be so situated that it has good drainage, a South or Western slope being preferable. It should be well lighted and ventilated. Windows should be placed not to exceed eighteen inches from the floor. Nests and roosts should be made removable, so they can be taken out and thoroughly cleaned. The proper size for roost is 2x2 timbers with the uppermost corners rounded. And the best plan is to construct dropping boards under your roosts, easy of access so they may be cleaned every morning. A box for dust bath should be placed in one corner and kept filled with ordinary road dust, as this is one of the best materials obtainable for the purpose.

If possible, have a scratching shed in connection with your poultry house, otherwise keep the floor of your poultry house covered with some kind of litter. One of the best and most serviceable houses constructed, is built by using 2x4 timbers for the frame, covering inside and outside with building or tar paper and then using ship-lap or tongue-and-grooved siding, giving you a dead air space of four inches as a protection against frost.

FEEDING CHICKS.

Do not feed chicks for at least twenty-four hours after they are hatched. Their first feed should consist of the yolk of hard-boiled eggs and dry bread crumbs, to which add a small amount of Dr. David Roberts' Poultry Food. This acts as a tonic and helps to assimilate and digest the food, thus warding off the terrible diseases, indigestion and bowel trouble, which carry off 75 per cent. of the chicks that die under two weeks of age. This food should be fed for two days, then for eight or ten weeks practice the following system of feeding: In the mornings feed mash composed of the following ingredients, in the proportions specified:

Wheat.	5 lbs.
Oat Meal	2 lbs.
Unbolted Corn Meal.	3 lbs.
Middlings.	2 lbs.
Beef Scraps	4 lbs.
Crush Oyster Shell.	½ lb.
Dr. David Roberts' Poultry Food.	1 lb.

Mix with warm milk or water to a creamy mass, not sloppy. Allow to stand at least fifteen minutes, in a closed vessel or covered with a cloth, carpet, sack or something similar. Feed just what they will eat up clean without stuffing themselves. One of the best indicators as to whether or not you are feeding the correct amount is the fact that when the chicks are through their morning mash they should at once start in quest of insects, bugs, etc., but if overfed, they will sit around all drawn up and suffering from a derangement of their digestive organs.

At noon, feed hulled or pinhead oats. In the evening, feed small wheat. Feed no corn, cracked or otherwise. If this system of feeding is kept up until the tenth week, you can feed chicks just the same as adult birds and we will guarantee that you will raise 90 per cent. of those you hatch.

FEEDING FOR EGGS.

Feeding to produce eggs, and especially winter eggs, is a puzzle that we have solved. To produce eggs, one must supply the right kind of food. You cannot make "something out of nothing." Just so with the egg question. One must use a feed that compares favorably with an analysis of the egg, as "like produces like," and also the food must be balanced so as to assist digestion properly. Chemical analysis shows the egg to be composed of the following: Water, 67 per cent.; lime, 10 per cent.; albumen, 12 per cent.; fat, 9 per cent.; ash, 2 per cent. Analysis of certain feeds compare favorably with the egg, while others do not. The former must necessarily be fed. While this class of feed furnish all the material for producing eggs, it contains of the essential elements in such small quantities it must be supplied otherwise. This is just where Dr. David Roberts' Poultry Food steps in and performs its work. It supplies these elements. Not only this, but it tones up the entire system by giving strong circulation, good digestion, and keeping the bowels and liver properly regulated.

For morning feed, use mash proportioned as follows:

Ground Oats	25 lbs.
Wheat Bran	15 lbs.
Corn Meal	15 lbs.
Middlings	5 lbs.
Beef Scraps	8 lbs.
Clover Meal	51 lbs.
Crush Oyster Shell.	2 lbs.

Mix the above with warm water or milk (not hot) until it becomes a crumbly mass, not sloppy.

Use one gallon of the mash for every twenty-five fowls, and to this amount add two tablespoonfuls of Dr. David Roberts' Poultry Food, mixing same with mash thoroughly, before the water or milk is added.

Do not feed too much mash. While chickens are eating their mash scatter some oats in their scratching shed or litter.

At noon, feed wheat. In the evening feed corn. All grain should be fed in litter so as to encourage exercise. This is one of the essentials, as exercise gives a good appetite. Keep plenty of grits and fresh water constantly before the poultry.

FOR FATTENING POULTRY.

To fatten an animal or fowl, one must furnish a feed that is rich in carbonydrates and fat, instead of being rich in protein, as carbonydrates and fats are changed to fat whenever the fowl is fed more than enough to keep it warm and keep it strong enough to perform the work it has to do. This being the case, a fowl should be kept inactive as much as possible, so the food will go to fat instead of bone and muscle.

Here is a good morning mash for fattening: Equal parts of oat meal and corn meal, mixed with sweet milk. Feed all they will eat up clean. To every gallon of the mash, add one tablespoonful of Dr. David Roberts' Poultry Food, and one-fourth pound cheap sugar.

Feed cracked corn at noon, whole corn at night. Place fowl in slat bottom coop, that can be darkened with a curtain of some sort. Have a trough to place all the food in.

FEEDING TURKEYS.

Raising young turkeys is considered one of the most difficult things in poultrydom. But with Dr. David Roberts' Poultry Food this is made easy.

The first day's food should be the yolks of hard-boiled eggs, sprinkled with a small amount of Dr. David Roberts' Poultry Food. After this period feed up to the tenth week as follows: Make cottage cheese from sour milk—make it dry. Mix one tablespoonful of Dr. Roberts' Poultry Food to every pint of the cheese. Feed cheese mornings and noon, and hulled oats at night.

In the summer time poultry get bugs, insects, worms, grass, etc. In the winter time, Dr. David Roberts' Poultry Food supplies all these elements in a concentrated form. To prevent diseases and avoid loss, feed Dr. David Roberts' Poultry Food the year round.

"An ounce of prevention is worth a pound of cure." This is an old axiom and nowhere is it more applicable than in the poultry yard. Disease is usually the result of carelessness or lack of knowledge of how to care for poultry properly. Bear in mind, if our foregoing system is followed, there will be no disease.

POULTRY DISEASES

CATARRHAL OR DIPHTHERIC ROUP.

Make a solution of one part of Disinfectall and two parts water (one drop to the ounce), and wash head, eyes, nostrils and throat thoroughly. Then apply Dr. David Roberts' Roup Cure (see page 162), by rubbing same into the nostrils, over head and comb, and well into the mouth. Feed nourishing soft food, reduce corn and increase meat foods. In order to effect a permanent cure, one must use a good tonic in connection with the above treatment. The best tonic extant is made by taking equal parts of wheat flour, and Dr. David Roberts' Poultry Food, mixing same with just enough

water so you can form it into pills about the size of a large pea, and administer one or two of these pills three times a day until a cure is effected.

BRONCHIAL ROUP.

Take a tail or wing feather, strip the web from it excepting just at the point. Dip feather into some of Dr. David Roberts' Roup Cure, insert feather into the trachea (wind pipe) and give a quick turn. This is a delicate operation, but if you are careful there is no danger.

CANKER.

Associated with Roup, the symptoms being similar and the treatment is the same.

SYMPTOMS.

A cheesy matter collects on the tongue, roof of the mouth and around the opening of the wind pipe. Fowl usually breaths with mouth open.

TREATMENT.

Apply Dr. David Roberts' Disinfectall (see page 164) direct to the canker with a small brush or feather. Feed same as for Roup.

CHICKEN POX.

Caused by neglect or improper feed.

SYMPTOMS.

Small bunches of hard substances appear just under the skin on the comb, face and wattle, and in a short time they exude a liquid matter which dries and gives the head a scabby or scaly appearance.

TREATMENT.

Feed same as for Roup. Wash affected parts with a solution of one part of Dr. David Roberts' Disinfectall to nine parts of warm water, dry with a cloth and apply Dr. David Roberts' Roup Cure. (See page 162.)

CHOLERA.

This disease is very often seen among poultry, although many diseases are diagnosed as such. The cause of this disease is filth. It is one of the most contagious diseases. At the first appearance of Cholera one should kill and burn the fowl to check spread of the disease.

SYMPTOMS.

Fowl has at first a watery discharge from the bowels, lacking in color as the hours go by. The bird sits around with its feathers ruffled, head and neck drawn up close to the body, eyes closed, is very feverish and thirsty. It is inclined to remain standing just where it is. As the disease increases in violence the discharge increases, and the ability of the bird to move decreases.

TREATMENT.

Put one tablespoonful of Dr. David Roberts' Cholera Cure to every quart of mash, feed twice a day until all symptoms of the disease disappear. If the fowl is unable to eat, make pills of the Cholera cure (see page 158) by dampening it and administering one every four hours until a cure is effected. Follow up after a cure is effected by using Dr. David Roberts' Poultry Food (see page 161) in your regular feed.

SYMPTOMS.

The chicks go around with their mouths open, gasping for breath and making a gasping noise. Feed Dr. David Roberts' Poultry Food to your chicks and keep them free from lice, and they will never have Gapes. In case the chicks already have them, use the same treatment as for Bronchial Roup.

CROP BOUND.

Impaction of the crop is a condition known to many poultrymen. This is caused by the retention and swelling of grain by the accumulation of dead gasses or by some obstruction of the outlet of the crop. It is also caused by poor digestion, and occasionally a bird has had a fast, then when allowed all it will eat, it stuffs its crop to the utmost capacity.

SYMPTOMS.

Swelled crop. Fowl stretches its neck occasionally as though choked or trying to swallow.

TREATMENT.

Take ordinary baking soda (salaratus), dissolve a tablespoonful in one pint of warm rain water, flush crop by pouring the water down the fowl's throat. Knead crop gently between thumb and finger until the mass is broken up. Tie fowl by feet, lay its head downward, hold mouth open, work crop gently, and in this manner the crop may be emptied. In extreme cases, the knife must be resorted to, and when this is done the incision should be as high up as possible. After the mass is taken out, the opening should be sewed. Feed nothing but soft feed for eight or ten days, and a mixture of Dr. David Roberts' Poultry Food. (See page 161.) It is a rare case when the fowl dies from the operation.

DIARRHOEA.

In chickens and adult fowls, Diarrhœa is caused from too coarse food, filthy water, improper temperature, etc.

SYMPTOMS.

Discharge or looseness of the bowels.

TREATMENT.

Use Dr. David Roberts' Cholera Cure (see page 158) as prescribed for Cholera, using half the amount for chicks.

GAPES.

This is a parasitic disease prevalent among chicks. The worm that causes the disease is hatched from an egg containing embryo, and they attach themselves to the lining of the wind pipe. They live and flourish until they become so numerous as to choke the chick, if nothing is done to hinder their progress.

LEG WEAKNESS.

Caused from in-breeding, lack of nourishing food, overcrowding, damp quarters and sometimes from too wide a perch to roost upon.

SYMPTOMS.

Unsteady gait. Bird will attempt to walk and topple over either forward or backward, and in advance stages, is wholly unable to walk. The feet and legs become feverish and dry.

TREATMENT.

Rub legs with Oil of Camphor and add fifteen grains of Iodide of Potassium to every quart of drinking water. Feed nourishing food, containing double the amount of Dr. David Roberts' Poultry Food (see page 161) that is usually given.

LICE.

These pests are the cause of more death amongst poultry than any disease. In fact, they are the cause of many of the diseases and ailments amongst poultry. One must wage a constant war against vermin to keep the fowls free from them.

To keep the fowls free from vermin the following method should be followed. To every gallon of whitewash add one-fourth pint of Dr. David Roberts' Disinfectall. (See page 164.) Whitewash inside of poultry house and nests. Use Dr. David Roberts' Disinfectall in its purity on the roosts and dropping boards. Apply same with a paint brush or spray pump. Dust the poultry thoroughly with Dr. David Roberts' Diolice Powder, and the most effective way of doing this, if you have no machine, is to place fowls' legs between your knee, the head toward your body, raise the feathers with your left hand and dust the powder with right, being careful that the powder gets to the skin.

To keep the air pure and healthful in your poultry house all the time, fill a burlap bag with shavings or excelsior thoroughly saturated with Dr. David Roberts' Disinfectall and hang same in poultry house.

MOULTING.

This is not a disease, but may be touched on just here. This change takes place once a year and if properly cared for, poultry will begin to moult in late summer. Then by early winter they will be through, and will have their entire coat of new feathers, and be ready to start in on their winter lay of eggs. This is a vital period for the hen, and it is important that she should be fed Dr. David Roberts' Poultry Food (see page 161), as there is nothing better to aid in the growing of new feathers.

PIP.

Caused by the fowl being in a feverish condition.

SYMPTOMS.

The tongue becomes very dry and parched, the point of it becoming almost like horn.

TREATMENT.

Give fowl two drop dose of tincture of Aconite, every two hours until the sixth dose has been given. Use same treatment in connection as prescribed for Diphtheric Roup.

ROUP.

This is a disease that comes from sudden changes of the weather or may be due to birds being exposed to drafts. It may be the result of hereditary tendencies, over crowding, contagion, filth, etc.

There are several forms of Roup, known as Catarrhal, Diphtheric, Cankerous, Bronchital and Pulmonic.

SYMPTOMS.

Sneezing, discharge at the nostrils, difficult breathing, wheezing, rattling in the throat. Any one of several of these symptoms may be present, accompanied by a bad odor about the nostrils or mouth. Fowls thus affected want to sleep most of the time with their heads under the wings.

TREATMENT.

All birds affected as above should be separated from the rest of the flock and the premises should be given a thorough cleaning and disinfecting. Especially should the drinking vessels and feed troughs be carefully attended to. To prevent the spread of the disease, use a teaspoonful of Dr. David Roberts' Disinfectant to every gallon of drinking water, also use Dr. David Roberts' Poultry Food (see page 161), giving twice the amount prescribed for ordinary use.

SCALY LEGS.

Caused from a small parasite propagated by filth, burrowing under the scales on the legs.

SYMPTOMS.

Legs are very rough and unsightly.

TREATMENT.

Apply kerosene to the affected parts, then anoint with lard or vaseline.

WORMS.

There are more than a dozen different kinds of worms that infest domestic fowls, yet there are but three that are common enough to warrant suggesting means of getting rid of them. They are the tape-worm, round-worm and pin-worm. The tape-worms are jointed, the same as is found in man, only much smaller. They have small hooks arranged so that they cling to the wall of the bowels and thus subsist on the nourishing elements of the food found there. Round-worms take their name from their appearance. They are seldom passed in the droppings. They multiply very rapidly and are often present in great numbers. Pin or thread worms are very small, being about the size of a thread, white in color, and from one-half to one inch in length. These are quite often found in the gizzard, having eaten through the lining and into the gizzard proper.

SYMPTOMS.

Symptoms of the different worms are essentially the same. Indigestion, sometimes accompanied by looseness of the bowels. Fowls sit around, drawn up, feathers ruffled, comb becomes pale, fowl feverish. The surest sign is where the fowl "goes light," i. e., eats well but seems to gain no weight, and in fact decreases in weight all the time.

TREATMENT.

Let the birds fast for twenty-four hours, then feed a bran mash twice a day, to which has been added some of Dr. David Roberts' Worm Powder for Poultry. (See page 149.) Use one tablespoonful to twenty-five head of poultry.

As a preventive, use one-half of the amount once every two weeks.

In extreme cases, coop the bird, and do not feed it for twenty-four hours. Make a pill about the size of a pea from Dr. David Roberts' Worm Powder, and give to the fowl. Give light feed of bran mash, and in three hours give the bird a teaspoonful of Epsom Salts dissolved in water.

POULTRY POINTERS.

Do not overfeed.

Vermin, filth and lice propagate disease.

Dr. David Roberts' Diolice keeps out vermin. (See page 162.)

Always dust a hen thoroughly with Diolice before setting her on eggs.

Supply your poultry with green food in winter, by feeding cabbage, beets, rutabagas, etc.

Feed a variety. Your poultry tire of one food, just the same as you do.

See that all the cracks in your poultry house are stopped up before winter sets in, as the draft from a nail hole will do more damage than an open window.

Dr. David Roberts' Roup Cure is a positive cure for Roup, Canker, Cold, etc. (See page 162.)

Supply your poultry with plenty of fresh water, good grits, and keep dust box well filled.

Clean your poultry house every morning, if possible, and be systematic in your feeding.

Dr. David Roberts' Cholera Cure never fails.

Keep the poultry house sweet and clean by the use of Dr. David Roberts' Disinfectant. (See page 164.)

How to Make Your Own Stock Food at Home

By DR. DAVID ROBERTS
Cattle Specialist

The Originator of Condensed Stock Food.

IMPORTANCE OF HEALTHY STOCK.

It is a well-known fact that successful stock raising and dairying depends entirely upon the health and condition of your animals. If they be in a strong, healthy condition this is evidence that they are digesting and assimilating all the feed that they consume. A milch cow requires a certain percentage of the feed she eats to sustain her, the balance should go to the milk pail. This will be the case, if she is in a good, healthy condition and digesting and assimilating her feed.

NATURE'S CARE OF THE COW.

A cow at pasture depends entirely upon nature to supply and regulate her feed and it is during this season of the year that a cow produces the greatest amount of milk. This is because she is furnished with such ingredients as is required by nature to perfectly digest and assimilate her feed. She can only receive the feed that nature has provided for her, in its natural condition, during the grass season.

COW UNDERGOES GREAT CHANGE.

At the close of the grass season the cow is compelled to go into winter quarters, thereby undergoing a great change as to sunlight, fresh air, water, exercise and feed. While being in her winter quarters she is to a certain extent deprived of sunlight, and sometimes fresh air. She is usually watered at stated intervals. While at pasture she can partake of water in such quantity and at such time as she desires, the temperature of which is regulated by nature. This is a great advantage over the ice cold water, which she is often times compelled to drink or go without until the following day, at which time she is so thirsty that she is apt to partake so freely of cold water as to cause a chilling of the digestive organs, thus causing indigestion. Another common cause of indigestion is the lack of exercise. During the winter months, while a cow is shut in the stable so much of the time, it is impossible for her to get the exercise which it is her nature to have and which she gets during the summer months, while going to and from and roaming in the pasture while hunting her feed. The last and greatest cause of indigestion is the great and complete change that the cow is compelled to undergo, when required to change from the feed which nature provides in its natural form to the dry, fibrous and hard to digest fodders, which it is necessary that she be fed upon, not only to sustain her but also to make a profit for her owner.

A WINTER PROFIT PRODUCER.

If a cow during the winter months can be made a profit producer, it can only be done by furnishing her with something to stimulate her digestive organs and keep them

in a healthy condition, so that she may thoroughly digest and assimilate the feed that she eats. This can be done by adding to her regular ration such ingredients as she may need to tone up her system and thereby furnish her with a substitute for nature. A cow can produce more by receiving little feed and digesting it well, than by receiving lots of feed and only digesting part of it.

MAKE YOUR OWN STOCK FOOD.

A good Stock Food can be prepared at home at very small cost and fed to a herd so that the saving of feed will pay for the Stock Food, and the increase in milk and the health of the herd will be clear gain, the latter being a very essential and important thing to consider. If this alone was the only benefit derived by feeding the Stock Food, it would be considered a good investment. This Stock Food and tonic is not only a bone and muscle builder, a flesh and milk producer, but is also valuable as a health preserver and a preventive of disease.

ONE DISEASED COW ENDANGERS THE WHOLE HERD.

It is a well-known fact that a cow in a run-down condition is a hotbed for the germs of disease to lay hold on and multiply, not only becoming a dead loss to the owner but endangers the health of the whole herd. From this source many infectious diseases originate in herds and in this manner cause great loss to the owner.

A COW'S YEARS OF USEFULNESS PROLONGED.

Every dairyman owes it to himself to see that his cows are kept up to the highest point of productiveness. He should not be satisfied with the amount of milk that he is getting from a cow until he knows that she cannot be made to give any more. A cow can be kept up to her highest point of productiveness for many years provided she digests and assimilates her food; on the other hand, when she fails to properly digest and assimilate her food her years of usefulness are very much shortened. A cow is similar to a machine, the more you feed her the more she produces, the better care she receives, the longer she lasts,—this tonic to a cow is as oil to a machine. Therefore, when you have a good cow, why not take proper care of her and make her last for years in service instead of neglecting her, thereby shortening her period of usefulness, making it necessary to replace her with another cow which you are not sure is going to be a profit producer? In replacing a neglected cow which might otherwise be good for many years you are not only taking chances on getting a profit producer, but you are also taking chances on introducing into your herd, with every new cow you buy, diseases which might cause you great loss.

DISPOSE OF NON-PROFIT PRODUCERS.

If you have a number of cows in your herd which have passed the years of usefulness, dispose of them and give the balance of your herd the attention necessary to enable them to give the richest, highest test and largest flow of milk that it is possible for them to produce.

In disposing of the cows in your herd that have proved themselves to be non-profit producers and those that have passed their years of usefulness, and bringing the balance of your herd up to the highest degree of productiveness you are getting and saving all the profits from your herd, instead of putting part of the profit back in feeding and caring for the cows that have proved themselves to be non-profit producers, and those

that have passed their age of usefulness. A few cows well kept are more profitable than a larger number poorly kept.

QUICK MONEY IN BEEF.

Beef cattle should be given such attention as to cause them to fatten quickly, shorten the feeding period and produce the highest and best grade of beef that is possible to be produced. To obtain these results the best of attention should be given to them and such ingredients added to their feed as to cause perfect digestion and assimilation, thus enabling the animal to obtain a larger per cent. of flesh and fat-forming elements from a certain amount of grain.

HEALTHY INDIVIDUALS.

To be successful in the breeding of cattle, and especially show cattle, much attention should be given in order to produce strong, robust, healthy, superior individuals. In order to expect this the calf from the moment that it drops should receive proper care and such food as will be digested and assimilated so as not to overtax the digestive organs. To avoid this, such ingredients should be added to the feed as will aid digestion and assimilation, thus causing rapid development of bone and muscle and the result will be a perfect animal.

PROFIT SAVED.

Profit can be made easy and saved by the regular use of a good Stock Tonic, in the form of a pure, unadulterated Stock Food, which you can make at home and know positively that it is absolutely pure.

WHERE YOUR PROFITS GO.

All the bulky portions of Stock Food are products of the farm. You raise these products and sell them to your buyer; he then in turn sells them to the large grain dealer at a profit. The large grain dealer sells to the buyers for the different mills at a profit. In these mills your products are ground up, sold and shipped to the Stock Food factories at a profit, where it is medicated, then put up in packages and pails and labelled Stock Food. It is then sold to the wholesaler at a profit. The wholesaler sells to the retailer at a profit, and you buy from the retailer, paying him a profit. You being the consumer, must pay all these different profits, together with all freight charges. These freight charges, where the goods are shipped so many times, amount to considerable, for each time that the goods change hands a new freight charge is made and they are most all made for short hauls, and you well know that a number of short haul charges amount to more than one single long haul.

HOW TO SAVE YOUR PROFIT.

You can save the middleman's profit and the freight charges from one dealer to another on your products and back to the farm by buying your ground flaxseed from your home dealer in such quantities as to assure you of getting it at a reasonable price, or better still, buy or raise your own flaxseed and grind it yourself if you have a mill; if not have it ground at your nearest home mill. You are then sure that you are getting the very best and purest ground flaxseed meal that can be had. By adding to this ground flaxseed meal such roots, barks, herbs and seeds as nature demands for stock, you have a complete and perfect tonic in the form of a pure Stock Food. By feeding this Stock Food to your cattle, in small quantities, with their regular feed you will keep their diges-

tive organs in good condition, so that they can thoroughly digest and assimilate their feed, which will enable them to produce you a profit and also keep in a sleek, healthy condition. This when given to a milch cow will cause her to give the richest and greatest flow of milk that it is possible for her to give.

When given to beef cattle with proper feed it will enable them to obtain a larger percentage of flesh and fat-forming elements from a certain amount of grain, causing them to fatten quickly, thus shortening the feeding period and producing the highest and best quality of beef possible to be produced.

If you are in the breeding business, not only the prices which you can demand, but also your sales depend upon the strong, robust and healthy appearance of your stock.

HOW TO MAKE YOUR OWN STOCK FOOD AT HOME.

To prepare your own Stock Food at home, it is only necessary for you to have the medical parts (such as powdered roots, barks, herbs and seeds) to mix with the ground flaxseed meal. These powders we can furnish you at the lowest cost and with a perfect guarantee of purity.

We buy our roots, barks, herbs and seeds direct from the drug mills in large quantities, thereby getting the very lowest prices possible. They are shipped direct to our factory under a positive guarantee that they are absolutely pure. They are then carefully and scientifically mixed and placed in sealed cans, the contents of which we guarantee to be absolutely pure. This is the **CONDENSED STOCK FOOD**, by the use of which you are enabled to make an absolutely pure Stock Food.

DIRECTIONS FOR MAKING YOUR STOCK FOOD.

Dr. David Roberts Condensed Stock Food, 2 pounds.

Ground Flaxseed Meal, 25 pounds.

Place such amount of Ground Flaxseed Meal as you wish to use in large shallow box, spread over it the Condensed Stock Food, in the proportion of 2 pounds to each 25 pounds of Ground Flaxseed Meal. Then with a hoe or shovel turn back and forth five or six times, or until the Condensed Stock Food is thoroughly mixed with the ground flaxseed meal.

DIRECTIONS FOR FEEDING YOUR OWN STOCK FOOD.

For milch cows—Give two tablespoonfuls twice daily in feed of any kind.

For fattening steers or show cattle—Give two or three tablespoonfuls twice daily in feed.

For raising or fattening calves—One teaspoonful twice daily in feed or milk.

For horses—Give two tablespoonfuls twice daily in feed of any kind.

For brood mares—Give two or three tablespoonfuls twice daily in food.

For colts—Give one or two tablespoonfuls twice daily in feed.

For hogs—For every pig of 50 pounds or less give one teaspoonful twice daily in feed or milk. For hogs over that weight give one tablespoonful twice daily in feed.

For brood sows suckling pigs—Give two tablespoonfuls twice daily in feed.

For sheep—Give two tablespoonfuls twice daily in feed.

For fattening sheep—Give two tablespoonfuls twice daily in feed.

This Stock Food will aid digestion, increase the flow of milk, save milk in raising calves, keep hogs healthy and fatten them quickly, sleeken and fatten horses. It is a bone and muscle builder and for this reason all young stock as well as matured animals should receive it.

Calves and pigs receiving skim or separator milk should be given this Stock Food as it aids digestion and prevents scours. Medicate all salt given stock.

Two pounds of Condensed Stock Food mixed thoroughly with 25 pounds of salt and put in troughs in a sheltered place where the cows can have free access to it in passing to and from the pasture will keep them in a healthy condition.

This stock food is prepared especially for cattle, but has been used with such good results on other stock that we do not hesitate to recommend its use for all animals.

Successful Stockmen Highly Endorse Dr. David Roberts Condensed Stock Food.

Stockmen everywhere are warm in their praise of DR. DAVID ROBERTS CONDENSED STOCK FOOD, which not only has the advantage of greater economy than Stock Foods of large bulk, but is backed by the reputation of one of the greatest living Veterinarians, under whose personal direction it is prepared.

WISCONSIN INDUSTRIAL SCHOOL MAKES TEST—GIVES STRONG ENDORSEMENT.

We gave your Stock Food a fair trial on all our horses and half of our herd of Holstein cows, and the difference between those receiving the food and those not receiving it was very marked, the former being very sleek and thrifty. After this experiment we feel we cannot speak too highly of your food, and take pleasure in recommending it to all in need of a first-class stock food.

WIS. INDUSTRIAL SCHOOL.

Per K. C. Dousman, Supt. Stock Dept., Waukesha.

DROPS ALL OTHER FOODS AND USES DR. DAVID ROBERTS CONDENSED STOCK FOOD!

MONROE, Iowa.

Dr. David Roberts, Waukesha, Wis.

DEAR SIR:—Enclosed find draft for which please ship to Prairie City, by freight, one dozen packages of your Condensed Stock Food.

After giving your food several tests I am ready to recommend it to others. I have used stock foods at different times for the past eight years and some of the best I could get, but I must admit I got much the best results from yours. I am feeding nine calves on separator milk and adding your Stock Food, and they are doing fine, as good as some that are sucking the cow and no stock food.

I have fed it to fattening hogs, to sows and to pigs with excellent results, better than anything I ever tried. I also had a chance to give it a severe test on my horses, especially on our family horse. She got in bad shape, coat of hair was rough and she was not doing well. I fed her two different makes of stock food at different times, but did not help her. Last spring I fed yours to all my horses, her with the rest, and it caused her to shed off and got a nice coat of hair, and got fat so that several of the neighbors mentioned to me how well she was doing now. I used the oil meal to mix with it to save expense. I also mixed your food with salt and fed it to my cattle when I turned them out on pure clover pasture that had a good growth and not one bloated. I shall drop all other foods and use yours. Truly yours,

C. FAHRNEY.



*W. B. Prudden, Pres.
J. H. W. W. W. W. W. W.
J. H. W. W. W. W. W. W.
J. H. W. W. W. W. W. W.
J. H. W. W. W. W. W. W.*

*No. 1006
Capital \$300,000*

The Waukesha National Bank

Waukesha, Wis. Nov. 20th., 1905.

Dr. D. Roberts,
City.

You ask if you can refer to this Bank in placing before the public your Veterinary Remedies.

Most certainly you can. One who can concoct remedies which evidently gives great relief to the distressed dumb animal, is entitled to be called a benefactor.

Your testimonials, which I have seen, from stock raisers, not only in the United States, but from Europe as well, are conclusive evidence as to the value of your remedies.

Your record and manly efforts command approbation. If this short letter is of any service to you, then use it.

Sincerely yours,

F. W. Harding, President

"YOU HAVE STRUCK THE KEYNOTE!"

Dr. David Roberts, Waukesha, Wis.

DEAR SIR:—I have used your Condensed Stock Food with highly satisfactory results. Think you have struck the keynote, as there is no chance for adulteration where a stockman buys the ingredients of a stock food and mixes them himself.

Yours truly,

F. W. HARDING.

DR. DAVID ROBERTS

Anti-Abortion Serum

See page 38 for
additional in-
formation.



Price \$1.00

FOR THE PREVENTION AND CURE OF ABORTION IN CATTLE.

What Dr. David Roberts Anti-Abortion Serum is.

It is scientifically prepared by a cattle specialist and graduate of one of the leading veterinary colleges of America.

It has been tried and tested by veterinarians and stock raisers in all parts of the United States, Canada, Mexico and Europe and has stood the test.

It is the cheapest, simplest and easiest method of stamping abortion out of a herd.

It will positively prevent and cure abortion in cows, and thereby wipe it out of any herd no matter of how long standing.

It will convert a diseased, rotten, filthy herd into a perfectly clean, healthy one, and by so doing increase the value of the herd.

It does not cost one cent to use it, as the increased flow of milk (due to a healthy herd) will more than pay for the treatment.

It is profitable to use it, as you will have a lot of strong, healthy calves for sale instead of a few sickly, diseased ones.

The SERUM does not in any manner interfere with the regular flow of milk, except as it destroys the germs and renders a herd free from disease, consequently the cows will naturally increase their flow of milk, and the results are a healthy herd, strong, live calves, and an extra amount of milk, which will pay for the treatment, while the calves are a clear gain instead of a dead loss.

A cow that has aborted will be out of condition for a long time, her milk will be short in quantity and poor in quality; she will undoubtedly abort next year and is more susceptible to other diseases, such as barrenness, etc., unless the germ of abortion is destroyed. Dr. David Roberts Anti-Abortion Serum treatment is the only SURE way to combat Abortion.

It is necessary that the SERUM be administered hypodermically. Hypodermic Syringes illustrated on page 166.

Every owner of cattle should have handy one of these syringes and a bottle or more of Serum for unexpected cases of Abortion.

DR. DAVID ROBERTS

Antisepto

One Pound Can



Price \$1.00

This will make 16 gallons of Antiseptic Solution.

**For Washing the Genital Organs of Cattle. Destroying Germs,
thus Preventing Infection. Indispensable to the Cattle
Owner who Guards the Health of his Animals.**

All cows and heifers having an unnatural or catarrhal discharge from the vagina should have their genital organs washed out with the Antiseptic solution until all discharge ceases.

The sheath of the herd bull should be washed out after each service; this will prevent him from becoming infected, and in case he is infected will prevent him from infecting cows and heifers bred to him.

The Antiseptic solution prevents and destroys germs, soothes and heals the inflamed mucous membrane of the genital organs, thus preventing the formation of germs and the spread of abortion.

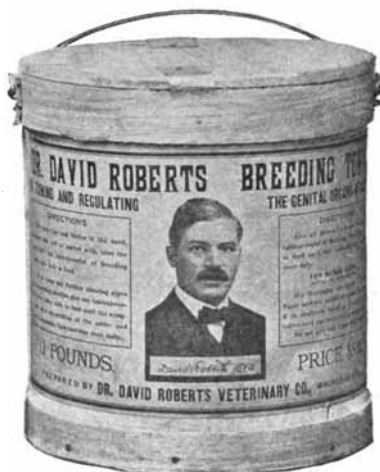
This Antiseptic solution is also good for washing the genital organs of mares, ewes and sows.

Put up in air-tight cans with friction top, which preserves contents and makes it easy to remove.

DR. DAVID ROBERTS

Breeding Tonic

12 Pound Can



Price, \$5.00

**For Toning and Regulating the Genital
Organs of Cattle.**

Thus enabling cows and heifers to carry their calves full time.

Dr. David Roberts' Breeding Tonic, which is prepared especially for pregnant cows and heifers, should be fed to pregnant cows in small quantities in their feed during the period of pregnancy. This will keep their genital organs in a strong, healthy condition, thereby enabling them to give birth to a strong, healthy calf in the proper manner, at the same time preventing retention of the afterbirth, catarrhal discharge and barrenness, thereby enabling the cow to ward off many diseases that she is liable to contract at this critical period. The feeding of this breeding tonic to pregnant cows strengthens and invigorates the muscles and all of their genital organs to such an extent that they have no trouble in calving and expelling the afterbirth as nature intended they should.

This BREEDING TONIC is also invaluable for other pregnant animals, mares, ewes and sows. Same dose for mares as for cattle; half the amount for ewes and sows.

For sows it may be given in the slops or swill.

DR. DAVID ROBERTS

Cow Cleaner

See page
42 for
additional
informa-
tion



Price
\$1.00

An Indispensable Compound for Expelling the Afterbirth in Cows and Heifers.

Thus preventing catarrhal discharges which often produce infectious abortion in cattle, also barrenness.

Put up in air-tight cans with friction top, which preserves contents and makes it easy to remove.

An afterbirth that can be removed without force or injury to the cow is in a condition to come away of its own accord.

In removing the afterbirth by main force it is only the body of it and such buttons as are torn off that come away, thus leaving many serious conditions. If the cotyledons or buttons are forcibly torn off there is great danger of serious internal hemorrhage as well as leaving a lot of clotted blood in the womb to decompose.

The parts of the afterbirth attached to the buttons are retained and undergo putrefaction, and the buttons torn from the womb leave raw sores which become infected by the rotting, decomposing, irritating masses of foreign matter, of which a large per cent is absorbed by the system.

This is liable to produce barrenness and infectious abortion, and the cow by absorbing a large portion of this matter dries up on her milk, grows thin rapidly and is liable to become a victim of tuberculosis; and if she contracts it, is then in condition to expose the entire herd.

NOTICE.

A cow that has retained the afterbirth should be placed in a well bedded box stall. Give her warm drinks, boiled oats and hot bran mash. If in cold weather place a blanket over her.

A cow that retains the afterbirth will be out of condition for a long time.

Her milk will be short in quantity, poor in quality and unfit for human use.

Avoid this danger by having the Cow Cleaner on hand and giving as directed.

DR. DAVID ROBERTS
Calf Colera Remedy

See page 51
 for
 additional
 information



Price \$1.00

**A Valuable Remedy for the Prevention and Cure of
 Scours in Calves, Calf Cholera, White Scours,
 Diarrhoea, Bloody Flux, Dysentery
 and Indigestion.**

The most important factor in the raising of cattle is their care while young.

Do not think that you are doing the correct thing if you are only managing to keep the life in a calf until it is three months old and then have it get fat on grass before the winter comes. If you do this you are apt to have a lot of "scrawns" with their digestive organs destroyed and which will never make strong, healthy steers or cows and will not be good for either dairy, beef or breeding animals.

SPECIAL CARE OF CALVES UNDER TREATMENT.

Stable should be thoroughly cleaned, disinfected with Disinfectall, and well drained, allowing plenty of sunlight and good ventilation.

The hind quarters and tail should be washed with a solution of Disinfectall.

The CALF CHOLERA REMEDY is invaluable in overcoming all stomach and bowel troubles in calves, colts, lambs and pigs.

Calves should be fed sparingly while under treatment.

This remedy is put up in air-tight cans with friction top, which preserves the contents and makes it easy to remove.

DR. DAVID ROBERTS
Badger Balm

See Cattle
 and Horse
 Section for
 additional
 information



Price
 50 Cents

UNEXCELLED FOR

Sore Teats, Cow Pox, Caked or Inflamed Udder in Cows, Galls, Scratches, Cracked Heel, Sore Neck, Cuts, Wounds, Inflamed Swelling and all kinds of diseases in Cattle and Horses.

An excellent Healing Balm for general family use in the following Skin Diseases: Piles, Salt Rheum, Eczema, Erysipelas, Scrofulous Ulcers, Ringworm, Wounds, Cuts, Bruises, Boils, Chaps, Sunburn, Chilblains, Frost-bites and bites of poisonous insects.

Use Badger Balm freely. It is soothing and healing. Should be in every household.

DR. DAVID ROBERTS
Milk Fever Outfit

See page
 60 for
 additional
 information.



Price \$3.00

**A Tried, Tested and Positive Cure
 for Milk Fever.**

This outfit contains sufficient of the treatment to save from six to ten cows.

Every owner of a cow should have a Milk Fever Outfit on hand to insure him against loss of his best cows by milk fever, as none but the best are liable to be affected.

Put up in air-tight cans with friction top, which preserves contents and makes it easy to remove.

DR. DAVID ROBERTS

Laxotonic

See Cattle
Section for
additional
information .



Price
50 Cents

A Laxative and Nerve Tonic

To Overcome Constipation, Paralysis or Stoppage of the Bowels of Cattle. Also to prevent and overcome Bloat.

LAXOTONIC is administered in small doses dry on the tongue, and the danger of drenching is thus avoided.

Never give a cow a physic such as salts or oil, for if the bowels are paralyzed, these will produce inflammation and death will follow.

WARNING!

It is absolutely dangerous to administer a physic to cattle by drenching, on account of the great liability of part of the drench passing down the windpipe into the lungs.

Many a valuable animal has been thus killed outright, or so injured as to linger in an unhealthy condition for many months and finally die of lung trouble.

For this reason our LAXOTONIC, which is an invaluable powdered compound, was prepared to overcome constipation and paralysis.

Put up in air-tight cans with friction top, which preserves contents and makes it easy to remove.

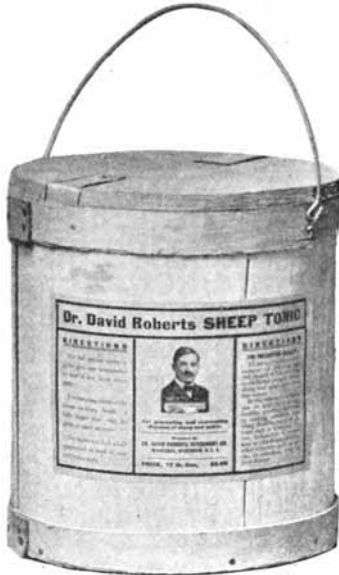
NEVER DRENCH CATTLE.

DR. DAVID ROBERTS

Sheep Tonic

See page 121 for additional
information

Price, 12 lb. can, \$5.00



Sheep Tonic should be used in preventing and overcoming all diseases of sheep and goats.

It is a great deal easier to prevent disease than it is to cure it, and at a small expense with the use of this Tonic, sheep and goats can be kept in a healthy condition and will ward off such diseases as Catarrhal Fever, Indigestion, and will regulate the bowels.

DR. DAVID ROBERTS

Cow Tonic

See Cattle Section
for additional informationOne Pound Can,
Price 50 Cts.12 Pound Can,
Price \$5.00

A Valuable Tonic to have on Hand for Following Ailments

Depraved Appetite	Catarrhal Fever	Lump Jaw
Loss of Appetite	Caked Udder	Inflamed Womb
Bloody Urine	Diarrhoea	Itching of the Skin
Bloody Milk	Cow Pox	Contagious Mammitis
Suppression of Milk	Dropsy of Abdomen	Scurf and Tuberculosis
Indigestion	Lung Fever	

This is a high-class general Tonic, and is excellent for fitting Show Cattle and preparing cows and heifers for the advanced registry, as it improves the appetite and increases the flow of milk. Put up in air-tight cans with friction top, which preserves contents and makes it easy to remove.

NEVER DRENCH CATTLE.

DR. DAVID ROBERTS

Germ Killer

One bottle
sufficient to
make an
eight gallon
solution



Price 50 Cts.

FOR WASHING WOUNDS OF ALL KINDS**Use for Washing:**

Wire Cuts
Broken Knees
Open Joints
Collar Boils
Poll Evil
Fistula Withers

Pus Cavities
Quarter Cracks
Quittor
Gravel in Foot
Sore Neck
Sore Back

Thrush in Horses' Feet
Foot Rot in Sheep
Roots of Tail and Mane
Sore Feet in Cattle

Exterminates Fleas on Dogs, Flies, Germs.

NOTICE!

NEVER USE SOAP in washing wounds.

DR. DAVID ROBERTS

Skin Ointment

Can con-
tains 1¼
pounds



Price \$1.00

An Invaluable Remedy for Mange

Also an excellent skin tonic and healer for skin diseases of all nature, such as Itch, Eczema, Erythema, Scab, Ringworm, Dandruff and Scurf.

It also prevents the spread of Skin Diseases, which is oftentimes catching, such as Mange.

DR. DAVID ROBERTS
Antiseptic Poultice

**Contents of
 this Can
 makes ten
 pounds of
 poultice**



Price \$1.00

AN ABSOLUTELY RELIABLE ANTISEPTIC POULTICE. INVALUABLE IN OVERCOMING heat, swelling and inflammation of any part of the body or limbs of live stock, AND SHOULD BE USED FOR POULTICING THE FOLLOWING AILMENTS:

Sore or swollen throat in horses or cattle,	Nail pricks, Quittor, Corns or Founder in horses,
Sore, hot or inflamed feet in horses or cattle.	Sore Backs or Necks,
Swollen hocks,	Caked or inflamed udder in cows,
Swollen knees,	Bruises or Boils,
Swollen or inflamed tendons,	Pneumonia in cattle or horses,
Hot, swollen or inflamed joints,	Kicks and Bruises,
Foot rot or cracked claws in cattle,	Cracked Heels,
Poll Evil or Fistulas,	Scratches and all inflammation

This Antiseptic poultice is not to be compared with any vegetable poultice (such as flaxseed), and it never sours and is always free from germs. Is cooling, soothing and healing.

On account of its freedom from germs is often used in human practice with the best of results.

Put up in air-tight cans with friction top which preserves contents and makes it easy to remove.

It would be well to have a can on hand for emergency cases.

DR. DAVID ROBERTS
Worm Powder

One Pound
Can



Price
50 Cents

An Effective Remedy for Expelling and Freeing Animals of Stomach and Intestinal Worms of all Kinds.

Put in air-tight cans with friction top which preserves contents and makes it easy to remove.

SYMPTOMS

Slight colicky pains are noticed at times, or there may be only switching of the tail, frequent passage of manure, itching of the anus, or rubbing of the tail or rump against the stall or fences. The horse is in poor condition; does not shed his coat; is hide-bound and pot bellied; the appetite is depraved, licking the walls, biting the wood-work of the stalls, licking parts of the bed; eating earth, being particularly fond of salt; the bowels are irregular and constipated or diarrhoea being noticed. Adherence of dried, whitish substance about the anus and turning up of the upper lip.

(A symptom is a sign used by a dumb brute in trying to make his keeper understand that he is in need of medical aid, and should have it rather than stand the untold torture he undergoes while infested with worms.)

DR. DAVID ROBERTS

Eye Lotion

Six Ounce
Bottle



Price
50 Cents

An Unequaled Remedy for Sore and Inflamed Eyes of all Descriptions in all Kinds of Live Stock.

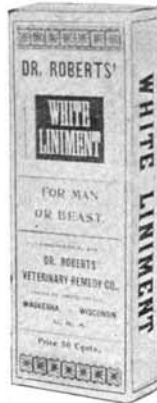
Very Valuable in Pink Eye and Catarrhal Affections of the Eye.

DR. DAVID ROBERTS

White Liniment

Price 50 Cents

For Man or Beast. An Old,
Tried and True Liniment
That Never Fails.



Gives Quick Relief in Cases of
Rheumatism. Once Used,
Always Used.

For All Sprains, Bruises, Sore
Throat, Lung Fever,
Etc., Etc.

This Liniment is Excellent for
Garget, Caked or Inflamed
Udder in Cows.

Family Use.—Chronic and Inflammatory Rheumatism.

Strained Ligaments and Joints, Contracted Cords, Muscular Soreness, Sciatica, Lumbago, Pleurisy, Side Ache, Lame Back, Sore Throat and Chest, and all Neuralgia Pains.

Veterinary Use.—Sweeney, Sprained Tendons.

Muscular and Ligamentary Lameness, Shoulder, Stifle and Hip Joint Lameness, Swollen Glands, Sore Throat with Distemper or Influenza, and Congestion or Inflammation of the Lungs.

DR. DAVID ROBERTS

Absorbent

Price \$1.00

See Cattle and Horse Section
for additional information.



The Best Remedy Known for
Lump Jaw and for Remov-
ing any Unnatural En-
largement on any Part
on the Body or Limbs
of Live Stock.

For External Use Only.

Dr. David Roberts' ABSORBENT is especially prepared to remove by absorbing, any unnatural ailment or enlargement of any part of the body or limbs, such as:

LUMP JAW,
SPLINTS, CURBS,
SIDEBONES, RINGBONE,
THOROUGHPIN,
BOG SPAVIN,
CHAPPED HOCK,
SHOEBOILS, WINDPUFFS,

CALLOUS COLLAR GALLS,
POLL EVIL,
FISTULA WITHERS,
COLD ABSCESS,
ENLARGED GLANDS, Such as
Goiters, Lump Jaw and enlargments due
to Kicks, Bruises, Cuts, Etc.

If the owner of an animal would stop and consider how much the appearance of it would be improved by the removal of a single blemish, he would undoubtedly have all blemishes removed, and in so doing greatly increase the value of the animal.

DR. DAVID ROBERTS

Wartine

See Cattle
and Horse
Section for
additional
information



Price
50 Cents

A harmless and painless treatment for removing warts of all kinds on livestock.

DR. DAVID ROBERTS

Umbilicure

See Naval Disease
in Colts and Calves;
also Foaling and
Calving.



For Preventing
Diseases
Contracted
through the
Navel Cord of
Calves, Colts,
Mules and
other Young
Animals.

The death of 75 per cent. of the young animals which die at birth may be attributed to diseases contracted through the navel cord, such as heat, swelling, lameness and gathering in any joints of the body, usually that of the ankle, hock, knee or stifle, which gathers, breaks and discharges a large amount of pus. Death soon follows unless properly treated; for this reason it is necessary and very important to not only examine but to treat the navel cord at birth to prevent the death of the young animal.

NOTICE.

All apartments where an animal is placed to bring forth its young should be thoroughly cleaned, bedded, ventilated and disinfected. An attendant should be present and the navel cord of all colts and calves should be cut six inches long and tied with a string soaked in Umbilicure and then apply Umbilicure to navel cord as directed. In this manner many a young animal can be saved which would otherwise die without the cause being known to the owner.

DR. DAVID ROBERTS

Fever Paste

See Cattle
and Horse
Sections for
additional
information



Price \$1.00

A Quick and Ready Relief for Coughs, Colds, Distemper and all Throat and Lung Troubles in Cattle and Horses

FOR

Colds	Lung Fever
Cough	Climatic Fever
Sore Throat	Catarrhal Fever
Distemper	Inflammation of Lungs
Influenza	Congestion of Lungs
Laryngitis	Stockyard Distemper
Pharyngitis	Asthma
Bronchitis	And all Throat and
Pleurisy	Lung Troubles

NOTICE!

Sore Throat or Lung Trouble

A sick animal should be placed in a well-bedded box stall and blanketed. Allow plenty of water and fresh air, but no draught.

The stall should be thoroughly disinfected and kept clean. Give animal Fever Paste according to directions.

Never drench a horse while suffering from distemper, sore throat or lung trouble.

Have Fever Paste in the house for immediate use.

DR. DAVID ROBERTS
Healing Lotion

**12 Ounce
Bottle**



**Price
50 Cents**

For live stock, healing old sores and preventing proud flesh.
This healing lotion should be used in the following ailments, and ought to be in every stock raiser's home.

Fistulas, Withers,
Quittors,
Proud Flesh,

Wire Cuts,
Poll Evil,
Pus Cavities,

Cracked claws in cattle,
And all deep seated wounds

DR. DAVID ROBERTS
Heave Powder



See page 93 for additional information

1 Pound Can

**Price
50 Cents**

12 Pound Can

Price \$5.00



**An Invaluable Tonic for Heaves, Asthma and Broken Wind in Horses.
This Treatment Always Gives Relief and Cures if Directions are Followed.**

Put up in air-tight, friction-top, one-pound cans which preserves the contents and makes it easy to remove; also in 12-pound wood jacket cans.

DR. DAVID ROBERTS

Horse Tonic



See Horse Section for additional information.

One Pound Can
Price 50 Cents

12 Pound Can
Price \$5.00



This HORSE TONIC is an effective stimulant, and should be given to prevent and overcome the following ailments in horses, colts and mules.

- | | |
|----------------------|------------------|
| Indigestion, | Loose Bowels, |
| Loss of Appetite, | Mange, |
| Staring Coat, | Emaciation, |
| Hide Bound, | Catarrhal Fever, |
| Lack of Ambition, | Distemper, |
| Stocking of Limbs, | Itch, |
| Capricious Appetite, | |

And all Blood and Skin Diseases.

Put up in air-tight cans with friction top which preserves contents and makes it easy to remove; also in 12-pound wood jacket cans.

NOTICE!

This HORSE TONIC is excellent for conditioning horses and colts for the show ring.

Examine your horses' teeth, and if the edges are sharp or ragged, have them dressed.

DR. DAVID ROBERTS

Colic Cure

See Horse
Section for
additional
information.



Price
75 Cents

A Never Failing Remedy for Wind Colic, Spasmodic Colic, Indigestion, Impaction of the Bowels, and Stoppage of the Water.

HOW TO KNOW COLIC

In the first stage the horse will begin to be uneasy, looks around, raises up his hind feet towards his belly, steps around from one side of the stall to the other, stops eating, will curl as if to lie down. In the second stage, he lies down and gets up again after lying perhaps a couple of minutes. In the third stage, he rolls, kicks, sweats profusely, has a haggard countenance, is inclined to turn upon his back, and remain so. If it does not leave off in the course of half an hour, it is apt to run into enteritis and kill him.

Every horse owner should have a bottle of Colic Cure on hand for an emergency case. Failure to give prompt relief may mean the loss of an animal.

HOW TO DRENCH A HORSE.

Back the animal into a single stall, place a clothes line around his upper teeth and pass it over a beam, pull him up gently and give one swallow at a time. (See page 89.)

DR. DAVID ROBERTS
Physic Ball for Horses

See Horse
 Section for
 additional
 information



Price
 50 Cents

A **PHYSIC BALL** should be given every two weeks to all horses and colts (except mares with foal) afflicted with the following ailments:

Out of Condition,	Skin Diseases,	Indigestion,
Loss of Appetite,	Swollen Sheath,	Staring Coat,
Hide Bound, Worms,	Depraved Appetite,	Swollen Limbs,
Heaves and Constipation.		

Give a **PHYSIC BALL** every three months to horses apparently in good condition, as it will keep them in good health and spirit.

All horses that are not turned out to pasture should be given a **PHYSIC BALL** occasionally to stimulate the liver, aid digestion, expel parasites, slicken the coat, and keep the animal in a good working condition.

A few of these Physic Balls should be kept on hand at all times for use in emergency cases.

DR. DAVID ROBERTS

Healing Oil

6 Ounce
 Bottle



Price
 50 Cents

A Positive Gall Cure, also a Valuable Preparation as a Healer for

Sore Backs,	Collar Boils,	Open Joints,
Shoe Boils,	Broken Knees,	Collar Galls,
Wire Cuts,	Fistula Withers,	
Poll Evil and all Flesh Wounds.		

In castrating colts, pigs, lambs, calves or other farm animals, use **HEALING OIL** freely on parts after the operation. This will prevent any bad results and insure prompt healing.

A bottle of this Oil should be kept handy and applied when needed.

DR. DAVID ROBERTS

Hoof Remedy

See Horse
Section for
additional
information



Price
50 Cents

Positively the Best Treatment for the Prevention and Cure of
Contracted Hoofs.

And to Overcome such Ailments as Corns, Founder, Soreness, and
all Ailments of the Feet.

DR. DAVID ROBERTS

Lucky Four Blister

See Horse
Section for
additional
information



Price
50 Cents

This Blister should be Used in the Treatment of all Cases Requiring a
Good Penetrating, Stimulating Blister, Including Lameness
of Shoulder, Stifle, Tendons, Hip Joints, also Sweeny.

For contracted Hoofs apply a little of the Blister, to cornet, at the same time ap-
plying the Hoof Remedy to the outside and bottom of hoof.

DR. DAVID ROBERTS
Poultry Cholera Cure

See page
 127 for
 additional
 information



Price
 50 Cents

For the Prevention and Cure of Cholera in Poultry.

This remedy is put up in an air-tight can with friction top which preserves contents and makes it easy to remove.

To prevent Cholera among poultry a can should be kept on hand and used when first symptoms of disease are shown.

DR. DAVID ROBERTS

Kidney Cure

See Cattle
 and Horse
 Sections for
 additional
 information



Price \$1.00

For the Preventing and Cure of Kidney Disease in Horses and Red Water in Cattle.

This remedy is put up in an air-tight can with friction top which preserves contents and makes it easy to remove.

A can of this remedy should be kept on hand at all times for sudden cases of that dreaded disease Azoturia, for which it is the best cure known.

Red Water in cows is also speedily cured with this remedy.

DR. DAVID ROBERTS

Fly Oil



Price,
1 gal. \$1.25

Price,
5 gal. \$5.00

Use Fly Oil Freely.

Animals sprayed in the morning with Fly Oil will be protected from flies and insects for the entire day.

DR. DAVID ROBERTS

Horn Killer



See page
54 for
additional
information

Price,
50 Cents

A powerful solution for stopping the growth of horns on calves.
The dangerous, painful and cruel process of sawing horns can be avoided by the use of this preparation, which is certain and painless.

DR. DAVID ROBERTS

Hog Tonic



See page 113 for additional
information

2 Pound Can
Price \$1.00

12 Pound Can
Price \$5.00



Hog Cholera is an infectious disease of the bowels, and often infects the lungs, and is due to a bacillus which is carried by the wind from one herd to another. It is for this reason that this medicine should be given as a preventive, to all hogs in a district where Hog Cholera prevails, as it increases the appetite, stimulates digestion, rids the hog of worms, puts him in a thrifty condition, enables him to take on flesh and ward off diseases.

Use Hog Tonic freely, it means better results.

NOTICE

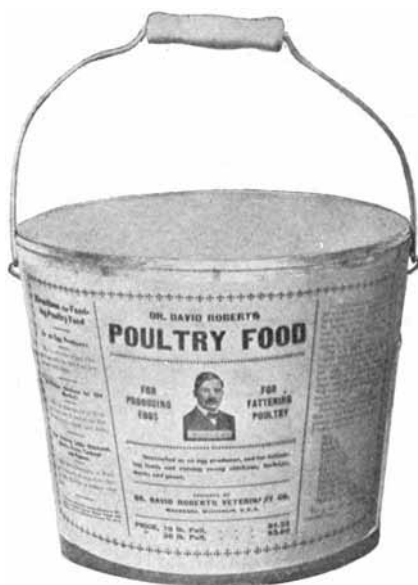
If one or more animals are attacked, the apparently well ones should be removed at once to another pen, and the infected pen be well disinfected with DISINFECTALL.

The apparently well hogs should be kept in a well ventilated, dry pen, and receive the best of care, Hog Tonic, wholesome food and pure water, and if any more get sick, the apparently well ones **MUST** again be REMOVED to another pen, and so on until the DISEASE HAS BEEN CONTROLLED.

DR. DAVID ROBERTS

Poultry Food

See Poultry
Section for
additional
information



12 Pound Pail
Price \$1.25
30 Pound Pail
Price \$3.00

Unexcelled as an Egg Producer, and for Fattening Fowls and Raising Young Chickens, Turkeys, Ducks and Geese.

Poultry fattens quickly if the proper conditions exist. Profit can be more than doubled. All fowls must be healthy to fatten. The blood must be in good condition, the bowels regular and the digestive organs in good order.

The only quick, positive and reliable method to do this is by the use of a GOOD POULTRY FOOD. It not only enriches the regular food, but it is an excellent flesh producer, and aids poultry to put on flesh so quickly as to make the most tender and juicy eating.

Fowls respond to this food promptly.

POULTRY FOOD will not only make hens lay, but it will ward off and prevent many diseases that poultry is subject to, such as:

PIP,
ROUP,
GAPES,
VERTIGO,
APOPLEXY,
CATARRH,

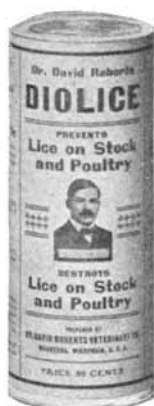
PARALYSIS,
DIARRHOEA,
BRONCHITIS,
CONSUMPTION,
CHICKEN CHOLERA.

Try it on half your flock and compare results.

DR. DAVID ROBERTS

Diolice

1½ Pound
Air Tight
Sifting Top
Package



Price
50 Cents

**An Unequaled Powdered Louse Killer
For Destroying Lice on all Live Stock and Poultry**

Diolice may be used at all seasons of the year, especially during the winter months when it is unsafe to use liquids on account of the danger of stock taking cold.

IMPORTANT!

Fowls cannot gain flesh or lay as they should if annoyed by lice. Setting hens will leave their eggs. DIOLICE should be used thoroughly during the hatching season. It will insure the lives of many little chickens that would otherwise succumb to disease by being worried and weakened by lice. Growing chickens must not waste their time in picking lice from themselves when they should be finding food and putting on flesh. These precautions will keep poultry free from lice and mites, and thereby make the poultry business profitable.

DR. DAVID ROBERTS

Roup Cure

See page
130 for
additional
information



Price
50 Cents

Prevents and Cures Roup in Poultry.

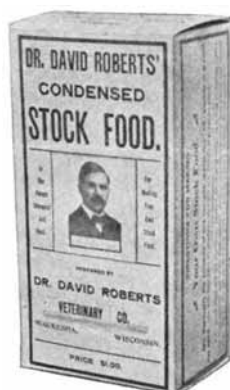
HOW TO KNOW ROUP.

Sneezing, discharge at nostrils, wheezing, rattling at throat and a bad odor about the nostrils or mouth.

Fowl wants to sleep most of the time with head under wing.

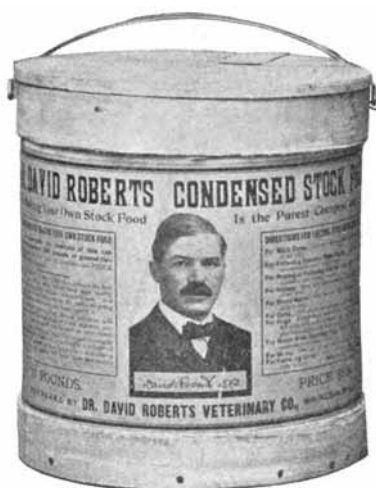
DR. DAVID ROBERTS Condensed Stock Food

2 pound
package
Price \$1.00



See page
133 for
additional
information

12 pound
pail
Price \$5.00



AN ADVANCED IDEA IN STOCK FOOD.

Our CONDENSED STOCK FOOD contains nothing but the purest of ground roots and herbs necessary to stimulate and tone up the digestive organs of all live stock. It is put up in this way to save freight.

DIRECTIONS FOR MAKING YOUR OWN STOCK FOOD.

Mix thoroughly 2 pounds of Condensed Stock Food to every 25 pounds of ground flaxseed. You will then have an unadulterated STOCK FOOD that has no equal.

This STOCK FOOD will aid digestion, increase the flow of milk, save milk in raising calves, keep hogs healthy and fatten them quickly, sleeken and fatten horses. It is a bone and muscle builder, and for this reason all young stock as well as matured animals should receive it.

To be successful in the breeding of cattle, and especially show cattle, much attention should be given in order to produce strong, robust, healthy, superior individuals. In order to expect this the calf from the moment that it drops should receive proper care and such food as will be digested and assimilated, so as not to overtax the digestive organs. To avoid this, such ingredients should be added to the feed as will aid digestion and assimilation, thus causing rapid development of bone and muscle, and the result will be a perfect animal.

Profit can be made easy and saved by the regular use of a good Stock Tonic, in the form of a pure, unadulterated Stock Food, which you can make at home and know positively that it is absolutely pure.

Two pounds of CONDENSED STOCK FOOD mixed thoroughly with every 25 pounds of salt and put in troughs in a sheltered place where the cows can have free access to it in passing to and from the pasture will keep them in healthy condition.

Stock raisers should mix their own Stock Food and know it is clean and pure. Try a can and see the difference between prepared Stock Food and that which you mix yourself.

DR. DAVID ROBERTS

Disinfectall

(Strictly a Live Stock Preparation)

Price \$1.25
per gallon



5 gallons
\$5.00

Nearly all live stock diseases are due to germs, and in order to prevent and cure them it is absolutely necessary to remove the cause, by destroying the germs in the stables.

This can be done by the liberal use of DISINFECTALL.

Dr. David Roberts' DISINFECTALL is a germ and insect destroyer, and as these organisms are the cause of such diseases as Infectious Abortion, Calf Cholera, Tuberculosis, Texas Fever, Hog Cholera, Chicken Cholera, Anthrax, Catarrhal Fevers, Distemper, Pink Eye, Blackleg, Influenza, Shipping Fever, Climatic Fever, Stock Yards Distemper, Glanders, Scabs in Sheep, etc., DISINFECTALL is invaluable for dipping Sheep Cattle, Hogs and Horses, for destroying Scabs, Ticks, Lice, Mange and all Parasitic and Skin Diseases of Live Stock.

Use Disinfectall freely throughout the stables and prevent the spread of diseases by killing the germs in the air. It is easier to prevent than to cure.

IMPORTANT!

Sixty drops equal one teaspoonful.

One drachm equals one teaspoonful.

Four teaspoonfuls equal one tablespoonful.

Two tablespoonfuls equal one ounce.

Sixteen ounces equal one pint.

For dipping live stock use one gallon of Disinfectall to 50 gallons of water.

Test Your Own Herd

This Outfit Complete for Testing Cattle for Tuberculosis.



Price \$5.00

Including Tuberculin Sufficient to Test Ten Head.
On all herds over 10 head figure 15 cents per head additional.

See page 67
How to Apply Test.

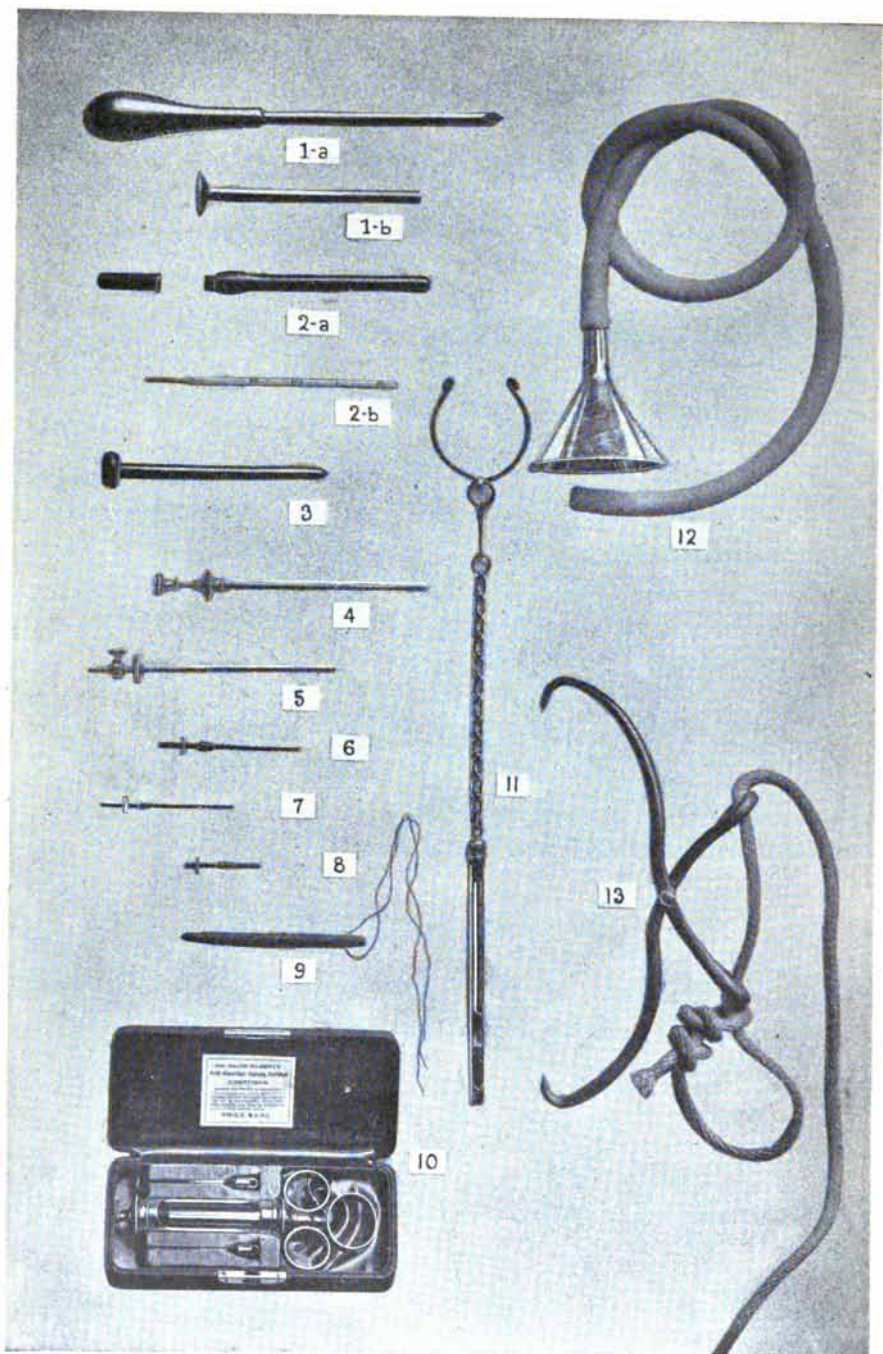
DELIVERED BY MAIL POSTPAID.

I supply charts for recording temperatures, and also

ADVISE YOU FREE OF CHARGE,

exact condition of your herd, after chart is returned to me.

Order an Outfit today and Test Your Own Herd, and be on the Safe Side.



1-a	} Cattle Trocar	\$1.50	7	Metal Milking Tube	\$.50
1-b				8	Teat Plug50
2-a	} Plain Thermometer	1.00	9	Womb Dilator	1.00
2-b				10	Hypodermic Syringe	2.50
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4	Teat Expander	1.50	12	Hose and Funnel50
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6	Rubber Milking Tube50				

IN CONCLUSION

We desire to emphasize in the strongest possible terms our desire to be of practical assistance to the owners and breeders of Live Stock.

We will consider it a privilege to answer by personal correspondence any questions relating to the care and management of Cattle, Horses, Swine, Sheep and Poultry. Dr. David Roberts himself will reply to all inquiries regarding diseases of live stock and their treatment.

We guarantee our Veterinary Remedies and Condensed Stock Food, when used according to directions.

We guarantee the genuineness of every testimonial appearing in this book.

In all cases where it is desired that Dr. David Roberts visit the herd, we will be pleased to arrange for such visit, to any point in the United States or Canada, as soon as his other professional engagements will permit.

It is impossible to cover in this condensed treatise all of the diseases of live stock. To do this would require many volumes.

No matter from what disease your stock may suffer, if you will write us fully regarding same, Dr. David Roberts will write you personally, advising you as to the proper treatment and the method of administering same.

In a word, the aim of this company is to render valuable service to owners and breeders of live stock everywhere.

We desire to thank our friends for their patronage and generous indorsement of our medicines and other products, and to extend to them our sincerest good wishes for their continued prosperity and success in raising the standard of their flocks and herds.

Faithfully yours,

DR. DAVID ROBERTS VETERINARY CO.,

Waukesha, Wis., U. S. A.

HOW TO ORDER.

If you have no order sheet on hand write plainly the name of medicine wanted and make remittance either by Post Office Order, Express Order or Bank Draft on Chicago or New York to Dr. David Roberts Veterinary Co., Waukesha, Wis., U. S. A.

Remittance must accompany order, otherwise medicines will be sent C. O. D.

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