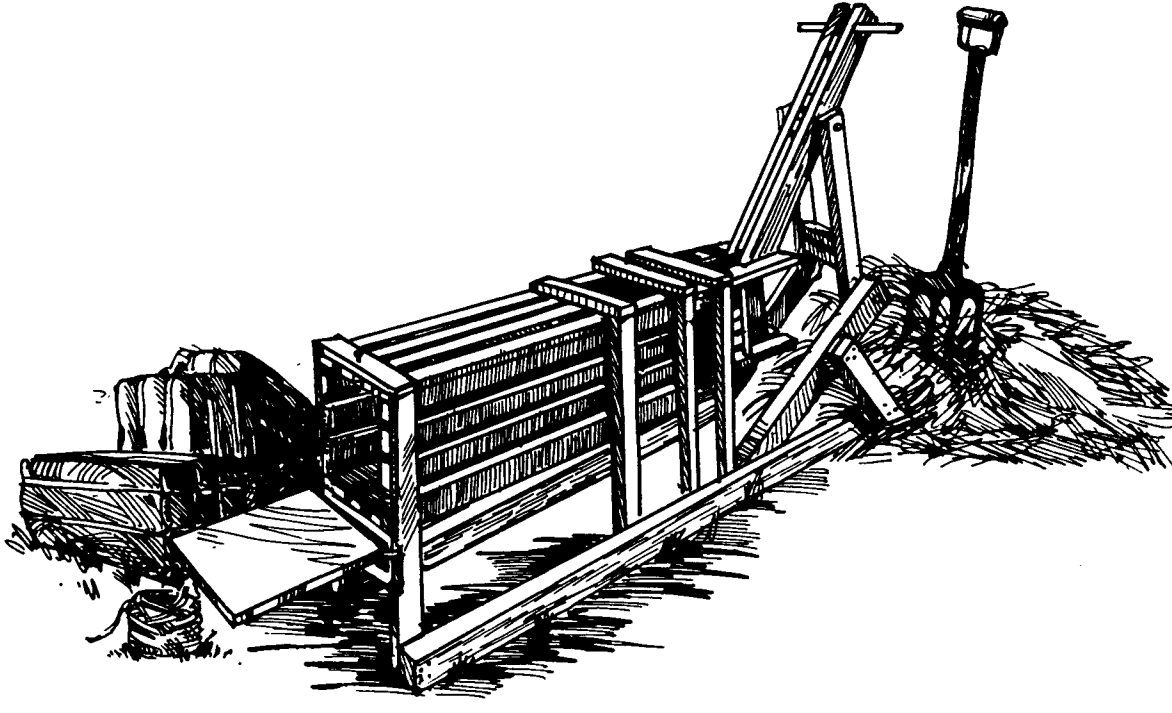
A Hand Powered Hay and Leaf Baler

by Larry McWilliams

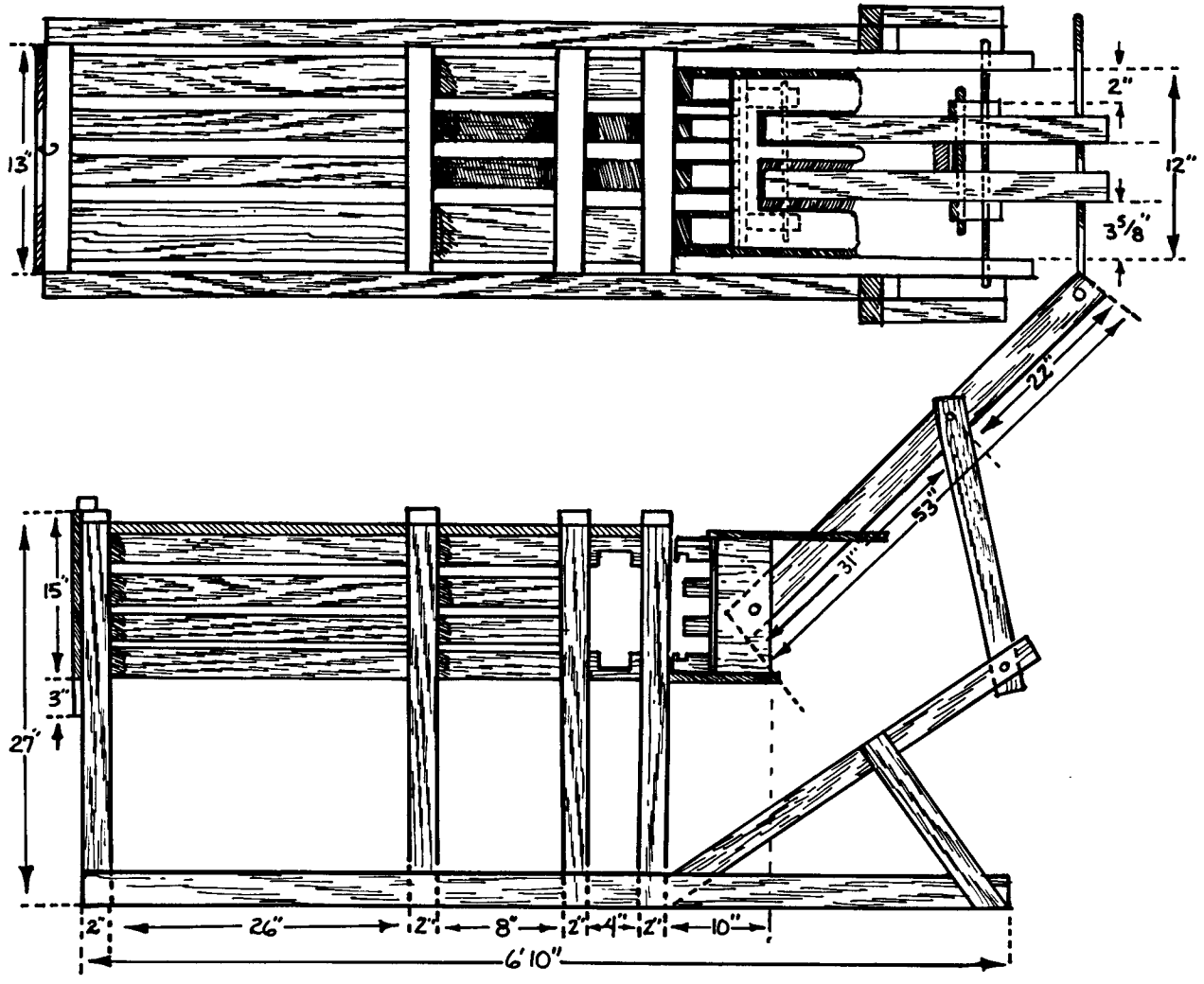


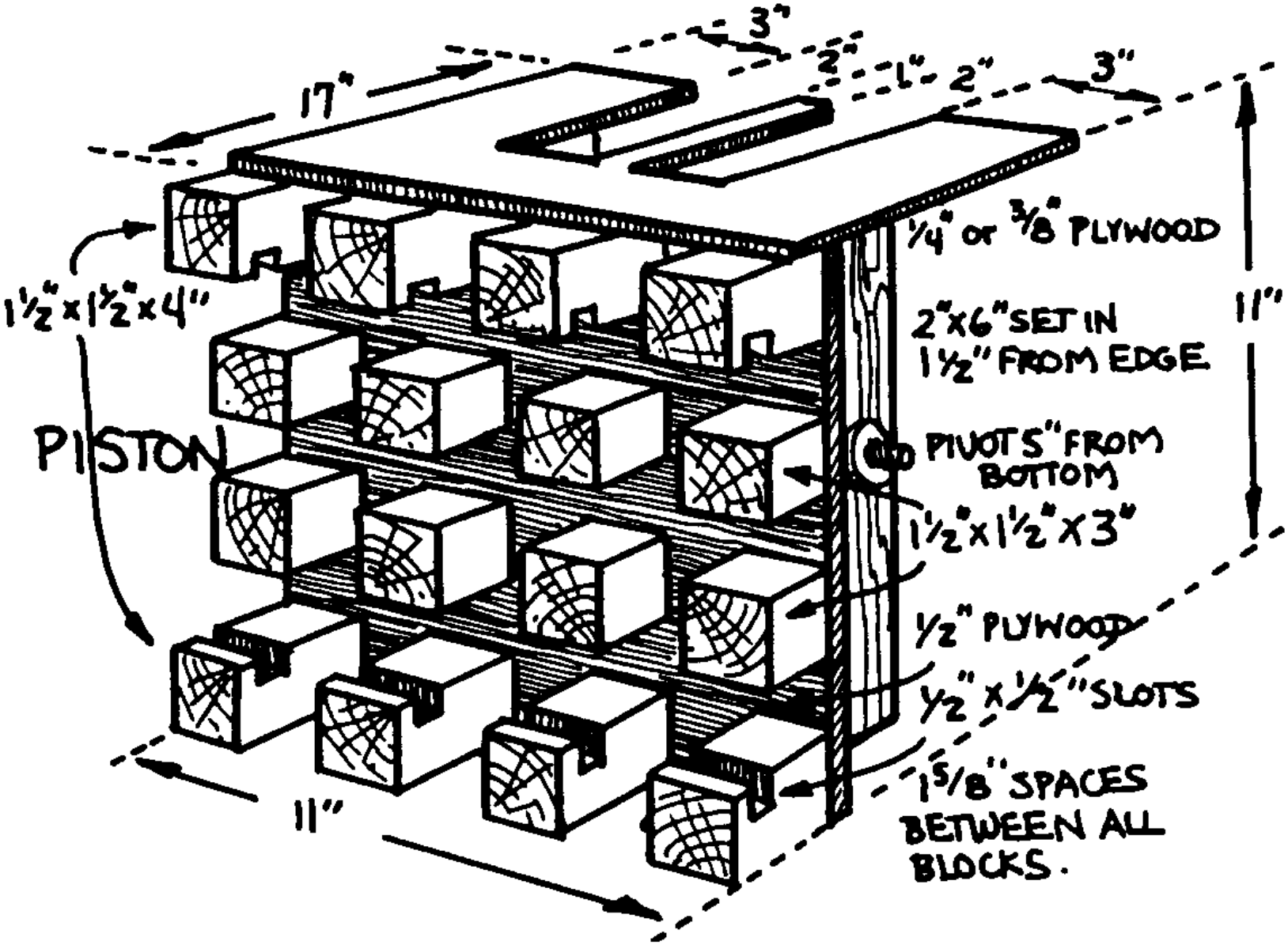
Many homesteads of twenty acres or less may have materials available for baling and storing for winter use but until now this has usually been impractical because of machinery costs. Here is a hand-powered baler that can be built with very little cost involved.

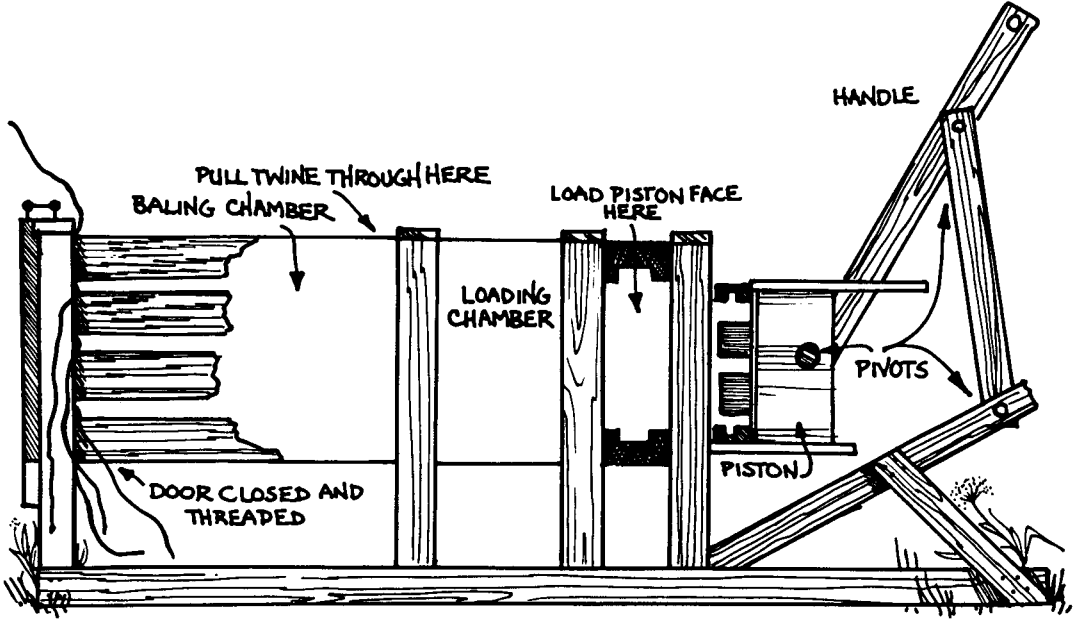
To build the baler begin by making the basic crate shape. This is done by constructing the sides, top, and bottom first. Next fasten these together to form the crate shape. All joints should be fastened with a waterproof glue and galvanized nails. The piston is put together the same way and care should be taken to make sure the spaces on the piston line up with the slots in the baling chamber. There are slots indicated on the top and bottom blocks of the piston. This is for a board, cut to fit, which is used while compressing materials into a bale. This piston face is removed when tying the bale together. All of the pivot points are put together with aluminum conduit, washers, and cotter pins. The entire machine should be painted with a good exterior paint.

This baler will make a bale about one foot square and two feet long. Most small homesteads don't use a full sized bale at one time and the hay which is usually left over is more than likely wasted. Anyway, I just don't want to lift a ninety pound bale when I don't have to. If a machine is needed which will make a larger bale just change the size of the whole thing to suit your needs. The levers which operate the piston should remain the same because they just move the piston. Only the size and length of the chambers need to be changed along with the size of the piston. This machine can also be made out of metal. Just use the plans as a guide for sizes and operative portions.

Now to operate this baler you have to first decide what you want to bale. In the summer it will probably be hay or straw. Don't quit there, the fall provides a lot of dry leaves which are excellent for livestock bedding and feed and lots of leaves can give you a great mulch the following summer in your garden. Likewise you can bale crops like comfrey provided it is thoroughly dry.


13"
2"
12"
3 5/8"
22"
53"
31"
15"
3"
27"
2"
26"
2"
8"
2"
4"
2"
10"
6' 10"


3"
2"
1"
2"
3"
17"
1/4" or 3/8" PLYWOOD
11"
1½"x1½"x4"
2"x6" SET IN 1½" FROM EDGE
PISTON
PIVOTS" FROM BOTTOM
1½"x1½"x3"
½" PLYWOOD
½"x½" SLOTS
1 5/8" SPACES BETWEEN ALL BLOCKS.
11"


HANDLE
PULL TWINE THROUGH HERE
BALING CHAMBER
LOAD PISTON FACE HERE
LOADING CHAMBER
PIVOTS
PISTON
DOOR CLOSED AND THREADED

To begin the baling operation thread the baling chamber with pieces of twine or cord which has a test strength of sixty to one hundred pounds. Each piece should be about six feet long and should be threaded through the slots in baling chamber as shown. You can make a small saw kerf at the end of each slot to hold the twine. Close the baling chamber and insert the piston face plate through the side at the place indicated. If you're baling hay you're ready to go. If it's leave you need to put a piece of newspaper in front of the piston face and push it into the chamber first. Now fill the loading chamber with material and push it into the baling chamber with the piston. Repeat until you have a fully compressed bale in the baling chamber. Remove the piston face plate by pulling it out the side. If it's leaves you're baling you need to insert another piece of newspaper at this point. This is not necessary with the hay. Now push the piston in as far as it will go. Using a stiff piece of wire with a small hook formed at one end pull the twine through the slot of the baling chamber right in front of the piston. Tie off that piece and repeat with the rest of the threads of twine until they are all tied. Then drop the door and push the bale out of the chamber with the piston. Now you can grab the bale and remove it from the chamber and you're finished. It may sound complicated but one man can make a bale in about six minutes from start to finish. It goes faster if there are two people working at it. One person can load while the other operates the piston.