

Applications of water power

Type of motion in machine

Type of prime mover in water

Work done

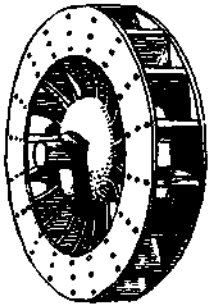
Process, eg.

Reciprocating:
cam or piston

Horizontal axis
wheel

Sawing
Air bellows
Water pumping

Timber reduction
Blast-furnace in iron or glass works.
Mining, land drainage and irrigation;
industrial processes involving cleaning
or cooling
Forge; crushing ore, clay
Trimming metal tools



(a)

Rotary with
direct horizontal
drive

Horizontal axis
wheel

Tumbling

Tumbler-mixing of eg. concrete; stone
polishing; laundry
Water supply for irrigation or manufacture

Rotary with
gearing to
horizontal axis
drive (a)

Horizontal axis
wheel

Raising water
'Noria'

Paper manufacture; metal rolling mills

Roller milling

Grinding

Tool manufacture;
Wire drawing
Textile weaving; fulling cloth
Metal and wood lathes
Pipe and tube making
Electricity generation
Wire coil and rope making

Turning

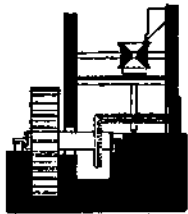
Boring

Dynamo

Winding

'Turntable'

Potter's wheel; wood turning



(b)

Rotary with right-
angle gearing to
vertical drive (b)(c)

Horizontal axis
wheel

Grinding
'Mortar and
Pestle'

Corn-grinding; flour mill; crushing aggregate

'Intermittent
counterpoise'

Tilt-hammer

Grinding powders

Forge; crushing ore, clay
Beating out metals
Pumping

Vertical axis
rotation (c)(f)

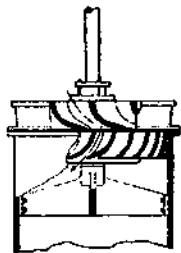
Submerged
'panemone' or
reaction turbine

Direct or geared
drive for most of the
above purposes

Corn-grinding, etc. in small amounts

Vertical axis
rotation (d)

'Norse mill' type



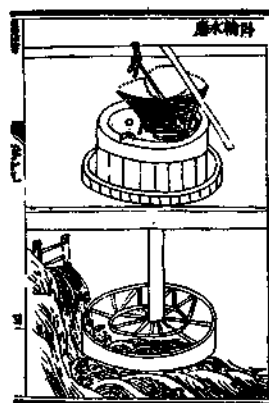
(c)



(d)



(e)



(f)