

Applications of water power

Type of motion in machine

Type of prime mover in water

Work done

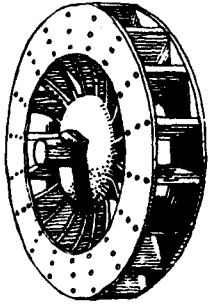
Process, eg.

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

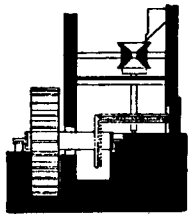
Boring

Dynamo

Winding

'Turntable'

Potter's wheel; wood turning



(b)

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

Horizontal axis
wheel

Grinding
'Mortar and
Pestle'

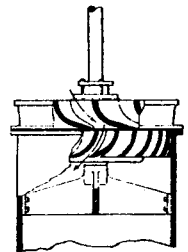
Corn-grinding; flour mill; crushing aggregate

'Intermittent
counterpoise'

Tilt-hammer

Grinding powders

Forge; crushing ore, clay
Beating out metals
Pumping



(c)

Vertical axis
rotation (c)(f)

Submerged
'panemone' or
reaction turbine

Direct or geared
drive for most of the
above purposes

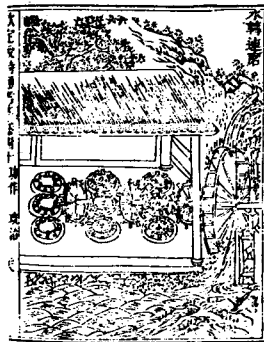
Vertical axis
rotation (d)

'Norse mill' type

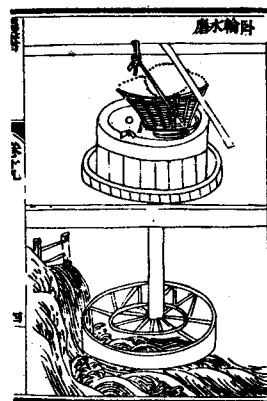
Corn-grinding, etc. in small amounts



(d)



(e)



(f)