

# THE PALIMPSEST

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## Mills of Antiquity

In the ages of antiquity man had nothing that resembled a mill. He probably used a "rock in place," and another "rock in hand" to crack or crush nuts and grain for his sustenance. Any advancement in this process developed very slowly. The only improvements through long ages were that the rock on which the grain was crushed tended to become cup-shaped, and the pounding stone oval or conical, and because man frequently moved from place to place there was a tendency to use rocks that were portable. These developments foreshadowed the mortar and pestle which were employed by the inhabitants of ancient Chaldaea and Britain, and by the aborigines of North America.

At length the development of the saddlestone presented a second step in the evolution of millstones — changing the method from pounding to grinding. The saddlestone has been described as "piece of quartz or other hard rock about the size of a half brick, one side of which has a convex

surface, and fits into a concave hollow" of a larger stone. The operator seizing the upper stone, would, "with a forward and backward rowing movement, grind the grain." It is believed that saddlestones were used in Ancient Chaldea, and are known to have been used in Egypt about 2300 B. C. They were used in Greece and Rome prior to the advent of the Roman quern.

The quern, which came into use about the second century B. C., constituted the third and final major improvement in the development of millstones. Whereas the motion of grinding on the saddlestone was oscillatory and, therefore, alternating, that of the quern was rotary and continuous. The first querns appear to have been hand mills consisting of a lower stone of somewhat conical form with an upper stone shaped to fit over it. On the upper stone was a handle to enable the operator to rotate it, and an opening through which grain was fed. With the passing of the years the upper stone was modified until the grinding surfaces were flat. It was then but a short step to the grooving of the flat surfaces and the modifying of the grooves for improved grinding. Thus, men of antiquity designed and developed a type of millstone that was destined to endure for many generations, and is still remembered as a basic unit and a significant part of the "Old Rustic Mill."

To a large extent the crude mills of antiquity

were operated by hand power — frequently by the hands of a slave, more often perhaps by the hands of a woman. Thus Samson, when he was made captive, about 1115 B. C., “did grind in the prison house,” and at a much earlier date the patriarch, Abraham, directed his wife, Sarah, to make ready three measures of “fine meal” as a repast for the angels.

Although hand-power mills continued to be used for centuries, mechanical power also came into use at an early date in many lands. Water wheels were of many types — overshot wheels, undershot wheels, breast wheels and turbines — all turning millstones to grind the golden grist. In the evolution of milling it was but a short step from the larger mills operated by slaves to mills of a similar type propelled by horse power. Horse-power mills like water wheels were known to the Greeks and the Romans. They were used in Germany, England, and France, before they were brought to America by the early pioneers. The first mill on Manhattan Island, it is said, was a horse-power mill built in 1628.

During the two thousand years or more since the water wheel came into use and the horse-power mills were designed, other modes of power have been evolved. The windmills — the windmills of Holland and the world — who has not heard of their power? Steam power, too, has played a major role in the operation of steam

boilers and steam turbines used in the turning of mill wheels and millstones. Thus in ancient and modern times, in foreign and domestic lands, many types of mills have developed. Indeed, the stages of culture may, in a measure, be revealed by the types of mills that were used — mills, mills many of them and of a wide variety.

But for adventure and romance, for simplicity of action and dignity of service, for charm and tradition, the old water mill is unsurpassed. What youthful memories, what pure delights, what economic significance is associated with the millstones, and the moss covered water wheels of the Old Rustic Mill.