

Improved Grist Mill.

This excellent mill is intended for general grinding, both for the farmer and mechanic. It is constructed of iron in its principal parts, and is not only strongly made but is powerful in its operation and very durable; it is not at all liable to derangement and may be operated by almost any one. By the adoption of this mill the farmer can do all his meal and feed grinding at home, and save both time and toll in going to mill. These mills possess new features in the construction of the grinding plates, a view of one of which is given in Fig. 2. The inventor says:—

"The teeth, A, are all formed in shape like the letter, Y, the lower part of each tooth in its row connecting with the upper part of the next below, and so on through the whole series in each radiating row of teeth, the extreme point of each arm of every tooth alternating in its circle with those in the next row in the next circle. By this arrangement and the shape of the teeth the pulverized stuff in the mill is forced, as well as ground, toward the periphery or discharging edges, and this occurs whether the motion is fast or slow, the mill grinding faster as the motion is increased. The teeth being all raised up over an eighth of an inch from the plane of the plates gives exceeding durability to the mill, which grinds freer as the teeth becomes worn, so that by reversing the motion the teeth are sharpened—one side of all the teeth are continually sharpening while the other sides are becoming dull, this being a self-sharpening mill, running either way equally well. The frame is cast in one piece, giving firmness and strength to the mill, and the grinding plates are easily removed and replaced by removing the hopper from the hopper-bed and placing the cob tube in its place with the open slot at the descending front corner of the crusher. Corn in the ear or any large substances can be put in by hand, such as ginger, mace, cut stalks of tobacco, calcined bones, rhubarb and drugs in general. The 'Nonpareil Mill' has been tested thoroughly, having been in use for custom grinding nearly three years; it has ground as high as twenty-five bushels of feed per hour, and yet no renewal of plates is required.

Fig. 2.

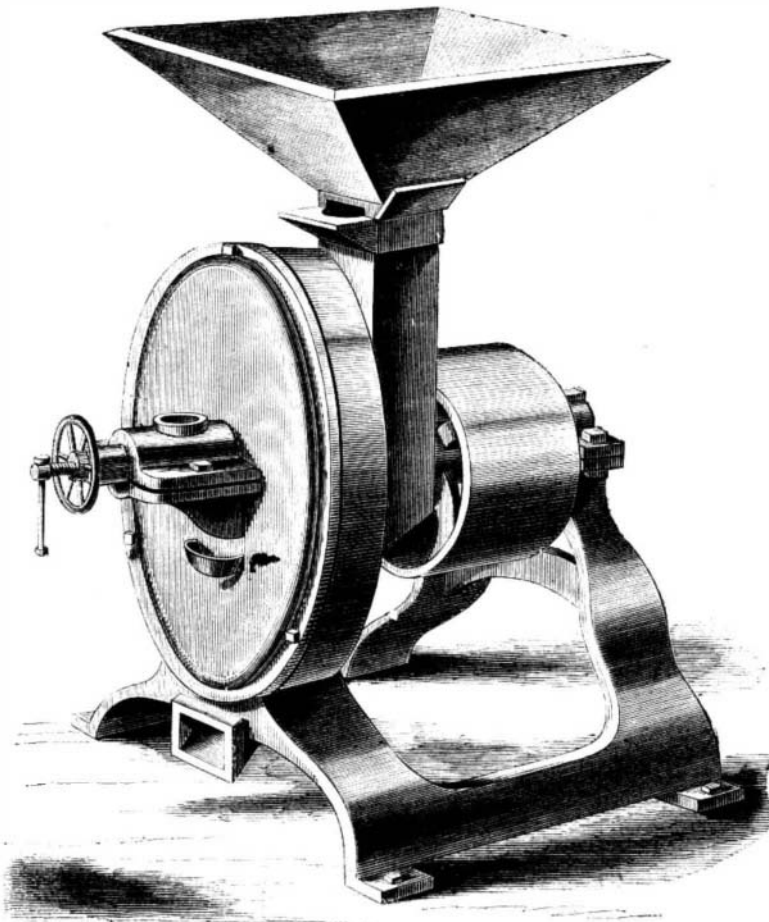


"The highest premiums for the best farm mill were awarded, to these mills at the two last Ohio State Fairs, and also at the Indiana State Fair of 1862. Believing that this principle for iron grinding mills will eventually supersede all others made from iron, from the smallest coffee and spice mill to the largest custom-feed mill, the inventor solicits a thorough trial and test of his mills by any parties interested in iron grinding mills, whether manufacturers, millers, man-

ufacturing druggists, coffee and spice grinders, or farmers. State rights for sale."

The inventor is confident that he has obtained the proper form for the teeth of his grinding surfaces, and the large number of testimonials and certificates which have been received by him show, at least, that those who are using them are well satisfied. This, it will be admitted, is the main point with them, and is good evidence in the inventor's favor.

Fig. 1.

**SEDBEER'S NONPAREIL MILL.**

Patented July 8, 1862, by J. Sedgebeer, Painesville, Ohio, from whom further information may be had by addressing him as above.

PATENT EXTENSION SCHEMES.

We print in another column [page 211] a candidly-written article from the *Bridgeport Standard*, against the applications now pending before Congress for the renewal of certain well-known patents. The article referred to, takes substantially the same view of the matter as has been held by the *SCIENTIFIC AMERICAN*; and we are glad to recognize its justice. The press is beginning to wake up on this subject; and we trust that all our cotemporaries will come out boldly against these unrighteous schemes. There is great danger that they may succeed; and nothing but a bold opposition on the part of the people will defeat them.

Coast Signals.

Some public-spirited individual writes the appended letter to the *Stoughton (Mass.) Sentinel*. Apparatus similar to that mentioned by the writer alluded to is now in use; but he advances some original ideas which are worthy of attention:—

"Having been impressed with the idea that some kind of a trumpet or whistle might be made that would be very useful to give warning to seamen when located on dangerous rocks and shoals, to ease my mind I have concluded to give some of my ideas for you to dispose of as you may think proper. The trumpet for this purpose should be like the common ones, except in size, with a shell attached to the mouth-piece like a small egg-shell, with a whistle or reeds, as scientific men versed in such instruments may determine, with another larger shell over it, with space between sufficient to blow through. I should

think when blown this would be a sufficient warning in fogs. Not knowing what sounds are produced by the wind, rigging and waves, I suggest none, for I never heard them. Some of the methods of blowing are by a pipe (the right length and dimensions of which would depend on the size of the boat to which it was attached), to rise and fall perpendicularly in the water with the motion of the boat, with a tube leading from the pipe to a trumpet. Any one wishing may see the principle on which it works by taking a keg, knocking out one head, bore a hole in the other and passing it up and down perpendicularly in the water. Another way may be possible by a ball fitted inside of a tube to roll back and forth by the motion of the boat, with valves inhaling and exhaling as the case may be, and tubes leading to the trumpet. Possibly weights might be suspended so as to swing and blow a bellows, or perhaps weights to run on a trundle to be passed back and forth by the motion of the boat, with a rod entering one end of a tube and a piston on the end to pass back and forth in the room of a ball; or perhaps the waves, in passing a boat, might turn side wheels and blow a bellows. May not such a one be sufficient for calms, and cannot one be blown in storms by wind? and may not the sound be increased by the bigness of the trumpet and the number of whistles blown in it? Now, cannot some of your readers study out and put in operation an invention of this character which will be of so much value to sea-faring men?"

Adepts in Commercial Puffing.

From the advanced sheets of Appleton's forthcoming work of "Business Anecdotes" we extract the following:—

"By universal consent the world has accorded to the late George Robins the palm for commercial puffing. His advertisements were really artistically written. He did perhaps go beyond the yielding line of even poetical license, when he described one portion of a paradise he was about to subject to public competition, as adorned, among other charms, with a 'hanging wood,' which the astonished purchaser found out meant nothing more nor less than an old gallows. But then he redeemed slight maneuvers of this kind by touches which displayed a native and overflowing genius for puffing. On one occasion he had made the beauties of an estate so enchanting, that he found it necessary to blur it by a fault or two, lest it should prove too bright and good 'for human nature's daily food.' 'But there are two drawbacks to this property,' sighed out this Apostle of the Mart, 'the litter of the rose leaves and the noise of the nightingales!' Certainly the rhetoric of exquisite puffing could no further go."

The English "Blakely" Gun.

Captain Blakely (whose large guns have proved so successful) has received orders from the British War Office to manufacture an "800-pounder gun," which is to be fired at the Royal Arsenal, Woolwich, with increased charges, up to "destruction point." The experiment is looked forward to with much interest. The English system of rating guns is so peculiar that we derive very little information from the term "800-pounder." There is a rifled gun in this country only 2 inches bore, which might, with equal propriety, be called a "10-pounder," for the bolt is 12 inches long and weighs about 10½ pounds, yet it would be no test of the endurance of a 10-pounder to fire this weapon until it burst.

THE AMES IRON WORKS at Falls Village, Conn., are running a strong force of hands upon its contract for wrought-iron cannon, and will complete the first one in April. These guns are a novelty to our Ordnance Department.