

## IMPROVED COTTON CLEANER.

The invention here illustrated consists in one of those slight modifications in an important machine which are frequently of great value. Before cotton is in a suitable state for market, it must be cleaned from sand and dirt, as well as from seed, and the amount of cotton annually produced is so large that the machinery for effecting this operation has attracted a great deal of attention. The cotton cleaner represented in the annexed cut is very simple in its construction, and will be readily understood.

A revolving cylinder, *a* (Fig. 1), carries a series of saws which project in part of their circumference through the eccentric slits, *b b*, and the cotton, being placed above these slits, is drawn through by the hooked teeth of the saws. A cylindrical brush, *c*, revolving in a direction opposite to that of the saws, and at a higher velocity, brushes off the cotton from the saws and blows it up the inclined trough, *d*. The bottom of this trough is formed of a series of curved slats of the shape represented in Fig. 2, the slits between them being narrow at the top and expanding below, as shown, so that the sand and dirt which falls upon the bottom of the trough may drop through freely without choking the openings. A series of beaters, *E E E*, so belted or geared that each one may revolve more rapidly than the one next below, drive, blow and beat the cotton upward through the trough, dashing it against the slatted bottom, and knocking the sand and dirt out of it. As the openings between the slats are curved backward and downward, while the motion of the cotton is upward and forward, there is no disposition in the cotton to again mix with the sand from which it has once been separated, but the sand falls through the slats into the air-tight receptacles below, while the cotton passes out of the end of the trough in a light and perfectly clean condition.

The patent for this invention was procured (through the Scientific American Patent Agency) on the 2d of October, 1860; and further information in relation to it may be obtained by addressing the inventor, William H. Johnson, at Albany, Ga.

**LAMPBLACK AND OIL THE CAUSE OF FIRE.**—An English manufacturer states that one of his workmen placed a ladle, which had been recently used for the purpose of measuring linseed oil,

upon the top of a cask of lampblack, and a few drops of the oil fell into the cask. One evening, just before closing the works, he discovered a very disagreeable smell and searched the factory to ascertain the cause, and, to his surprise, found the whole of the black in the cask resemble a large ball of fire; and there is no doubt

that before morning it would have burst into a flame, and caused not only the destruction of the stock, but of the entire premises. My plan has been (says the above manufacturer), since the occurrence, not to keep more black in stock than is required for present use. Wood

one of the firm—Mr. George Mungcy—was stimulated to devise a machine by means of which the operation could be performed either by steam or water-power. The machine invented and patented has proved entirely successful. The stuff is taken directly from the power plane, and finished in the most perfect and satisfactory manner in the machine illustrated by the accompanying engraving.

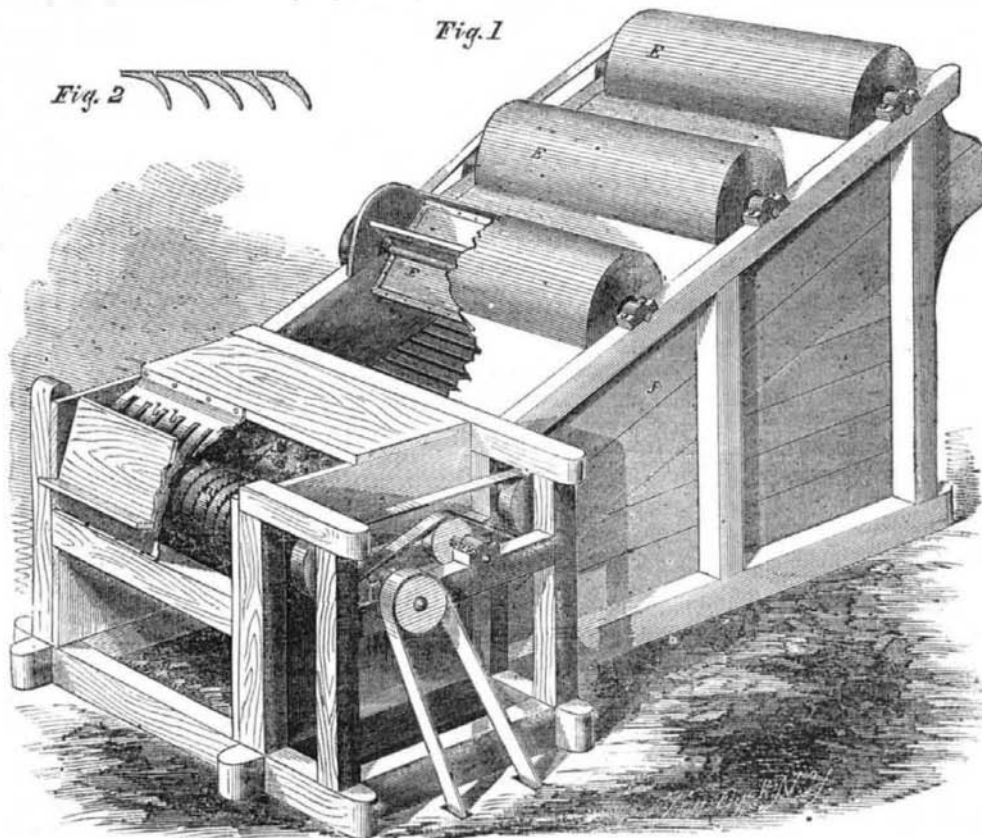
It is, we think, as well adapted for smoothing sash, doors, and other woodwork, as for wooden slates and their frames, for which it is so extensively used, and the owners of the patent have decided to offer it for sale to be used for such purposes. The annexed engraving illustrates the machine in the plainest possible manner.

The sandpaper, cut into round sheets, is pasted upon the top of a series of flat circular disks, *a*, and these disks being put in rapid revolution, the stuff to be smoothed is passed over them, being pressed down and fed along by the horizontal rollers, *b b b b*. These rollers are carried by a belt, *c*, which is pressed down against them by the rollers, *d d d*. The bearings of the rollers, *b b b b*, are in boxes which are secured in vertical grooves, so that their distance above the sandpaper may be varied to suit stuff of different thicknesses. The disk with which the stuff first comes in contact in its passage through the machine is covered with coarse sandpaper, and the disks which it successively encounters are covered with paper of increasing fineness, so that when it leaves the machine it is very smoothly finished.

The patent for this invention, which was granted (through the Scientific American Patent Agency) on April 17, 1860, has been assigned to Messrs. Dean & Munger, of New Haven, Conn., who may be addressed for further information in relation to the matter.

**SEARCH AFTER A LOST INVENTION.**—We sometime since alluded to the fact that the grave of the Marquis of Worcester was about to be opened for the purpose of discovering the original model of a steam engine invented by him. Through the researches of the indefatigable Mr. Bennet Woodcroft, of the London Patent Office, proof was obtained that the Earl of Worcester desired in his will that this model should be interred with him, and actually in his coffin. Mr. Woodcroft is now waiting to receive authority from the Duke of

Beaufort to open the old family vault and examine the coffin of the deceased noble inventor. In all likelihood, the old model will now be a handful of dust when found, as it was no doubt composed principally of wood. The records left us of this steam engine impart the information that it raised water direct by the force of a steam jet.

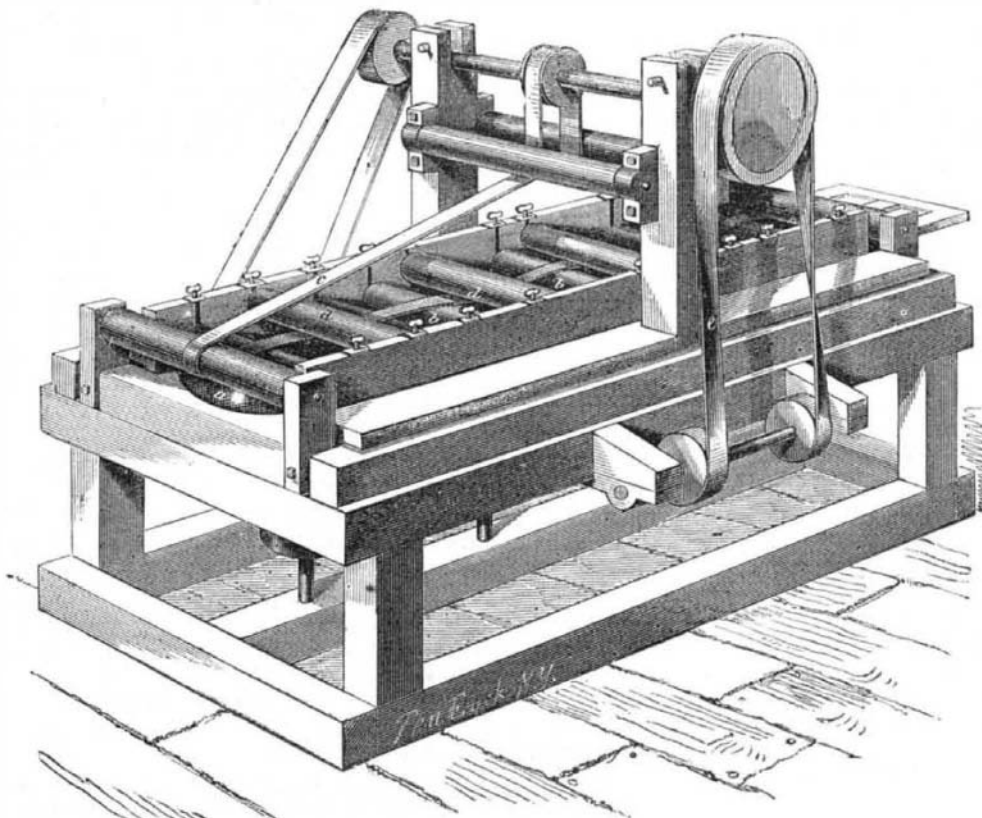


JOHNSON'S IMPROVED COTTON CLEANER.

or canvas painted with lampblack and oil ought to be carefully looked to, at least until well seasoned.

## IMPROVED SAND-PAPERING MACHINE.

Most woodwork requiring a smooth surface, after it



MUNGER'S IMPROVED SAND-PAPERING MACHINE.

has been passed through the revolving planer, is first smoothed with a hand plane and then finished by being rubbed with sandpaper. The large amount of labor involved in this smoothing by hand was found to be so expensive by Messrs. Dean & Munger, of New Haven, Conn., extensive manufacturers of wooden slates, that