

Portable Boring Machine.

It is not many years since it was the custom, in nearly all the machine shops in the country, to put on their large wheels, pulleys, etc., with four, six, eight, and sometimes twelve keys; and it is no small job—as the writer knows from actual experience—to cut the key seats in a cog wheel eight or ten feet in diameter, stake it on the shaft true, and fit the keys. And this mode of doing work prevails to a great extent at the present time, not because this is considered the proper way to do work, but because proprietors of small shops cannot afford to put up a lathe of sufficient capacity to do this kind of work, as it would involve an outlay of from three to six thousand dollars, and then perhaps they would not have work enough to keep it going one-fourth of the time.

The machine here illustrated is designed to meet the wants of all, as it can be used with advantage and profit in both large and small establishments; it frequently happens, in large shops, that they make large fly wheels, spiders for cog wheels, or propellers, that would require a great deal of time and labor to move them into the machine shop and set them on a boring mill. In cases of this kind this machine can be taken to the work; and, if not convenient to power, can be run with small portable engine or man power.

One of these machines has been in use some time in a shop where they have a horizontal boring lathe, and it is used at all times in preference to the lathe, doing about double the work the lathe can do; the great advantage being in setting the machine ready for work, not requiring one-fourth the time that it takes to set the work on a horizontal lathe.

The engraving fully explains the construction and working of the machine. The base plate or ring, A, in Fig. 1, is turned—top, bottom, and edge—true with the spindle or boring bar, B B B, and has the legs, C, and box, D, cast on it to support the other parts of the machine. The feed is worked by the eccentric, E, and bell crank, F, having a slot so as to adjust the feed to the work; by throwing the small pawl, G, over, it will feed down or up. The pulley, H, is put on with set screw, so as to be changed for different size of hole. For boring deep holes the guide bar, I, is bolted on the under side of the wheel to be bored, so as to steady the bar. For boring large holes a cutter head is put on the spindle.

By using a differential pulley block to elevate the machine while changing the work, it makes a most simple, efficient, and neat arrangement for boring.

A patent is pending through the Scientific American Patent Agency. For further information or machines, address Allison & Bannan, Franklin Iron Works, Port Carbon, Pa.

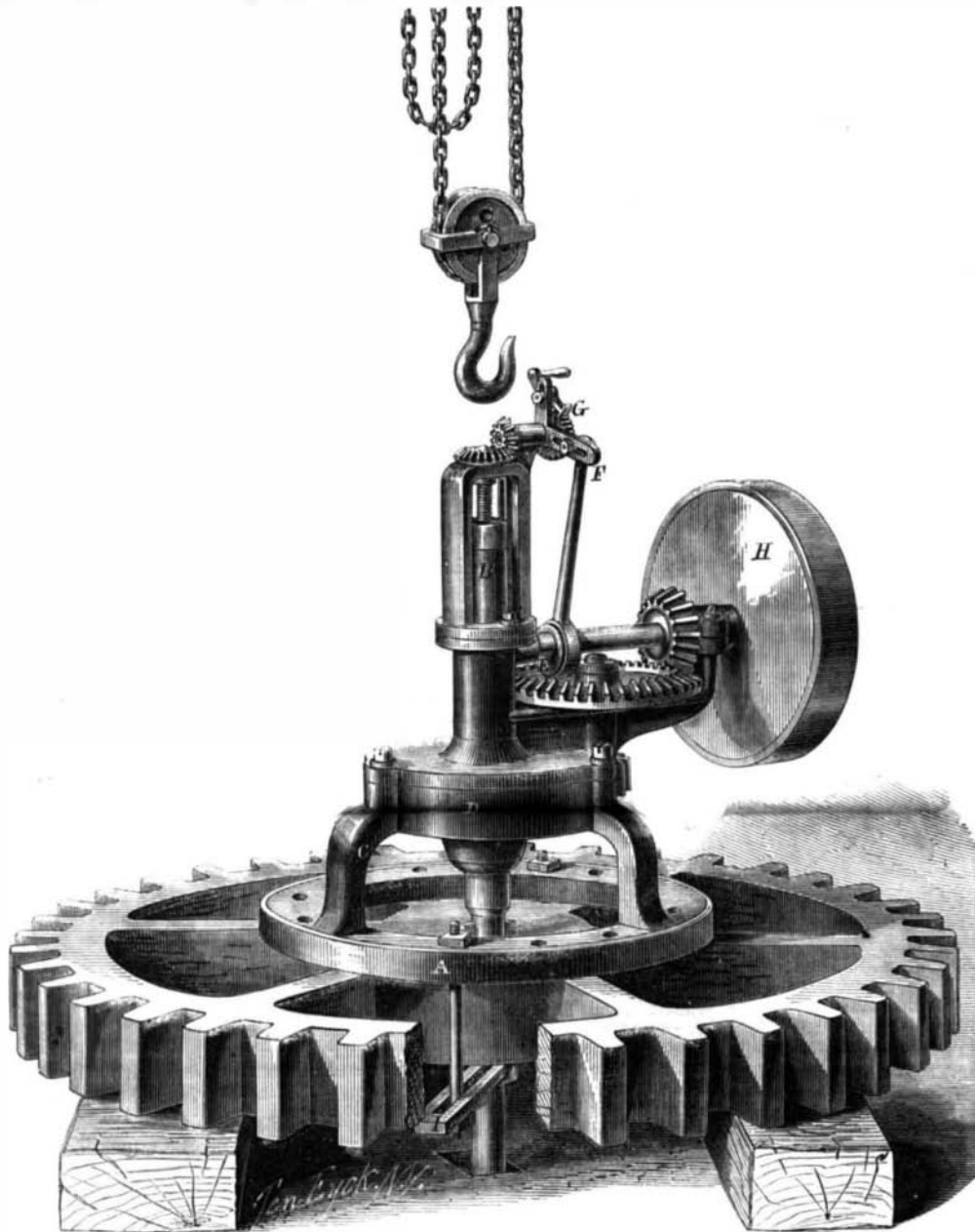
SPECIAL NOTICES.

Luther C. White, of Waterbury, Conn., has petitioned for the extension of a patent granted to him on the 7th day of Sept., 1852, for an improvement in the method of making lamp tops, rivets, etc. The petition will be heard on the 20th of August next. Joseph Gould has made an application for the ex-

ension of his patent for an improvement in mortising machines, granted to him Nov. 30, 1852. The petition is to be heard on the 12th day of November next.

A Royal Locksmith.

A collector of artistic curiosities was recently exploring the store of a dealer in old iron, in the Rue de Meaux, at Petite Villette, France, when he remarked an elegant little lock, covered with rust, but bearing the inscription, *Lud. XVI. me fecit*, and which he purchased for three francs fifty centimes. He has



ALLISON & BANNAN'S PORTABLE BORING MACHINE.

since sold it for two thousand four hundred francs at a large curiosity shop in the Faubourg St. Germain, of which sum he immediately carried one thousand two hundred francs to the petty dealer in the Rue de Meaux.

Louis XVI. was, it is said, a very skillful amateur blacksmith. He was much ridiculed by the fashionable people of his time for soiling his hands with menial labor. But he did many things more foolish, and if he had attended more to his shop and his fellow craftsmen, the guillotine would not have been invented, and he would have been buried with his head still on his shoulders.

A HINT TO SMOKERS.—M. Melsens, a French chemist, has found that tobaccos from various countries contain nicotine in very different proportions. In tobacco from some parts of France there is 7.96 per cent of nicotine; while Havana tobacco contains only 2 per cent. He proposes to smokers a way of preserving them from the effects of the alkaloid, by putting into the tube of the pipe or cigar holder a little ball of cotton, impregnated with citric and tannic acids. As the smoke passes through the cotton, it will deposit the nicotine therein, in the shape of the tartrate and citrate.

Bottled Caloric.

"Never despair," says Professor Jeannet, of Bordeaux; "your coal fields may fail, but acetate of soda will at any rate prevent your noble race from perishing during that gloomy British winter." This substance affords, in fact, says the Professor, a means of "storing up the solar heat." Its peculiarity is, that while it crystallizes when exposed, in solution, to a very slight degree of cold, it will cool without crystallizing if placed in a closed vessel. Cooling thus, it retains the greater part of the caloric which it had absorbed while being melted; and this caloric is given off the moment the bottle is uncorked or the jar uncovered. M. Jeannet has proved it. "One kilogramme of acetate, melted and then cooled down in a closed vessel to the freezing point of water, disengages, when crystallization is induced by uncorking, heat enough to melt 300 grammes of ice, or to raise 300 grammes of water from the freezing point to 79° centigr." Swift was not so very wild after all, then. Sunbeams from cucumbers would scarcely be stranger than solar heat from bottles duly placed "in a glass frame that the sun's rays may be concentrated upon them." Well may the *Union Medicale* call the path which M. Jeannet has struck out "a seemingly fantastic one." Still it clearly hopes for great results from the discovery, and seems to look forward to the time when there will be a brisk trade between England and the south of France in "bottled caloric," and when the Englishman, graduating his hospitality (as M. Kervigan tells us he does already in the matter of drinks) according to the quality of his guest, will, for an inferior, simply uncork a few bottles of the watery sunshine of his native island,—treat an equal to the strong but coarse caloric of Bengal—but if he has a lord at his table, will send down to his "heat cellar" for some of the "meilleur cru de the cote rotie"—warm but

full of bouquet. *Nous verrons*. Any how, it is kind of M. Jeannet to try to console us under such a visitation as that which Mr. Jevons predicts, in the possible loss of our coal fields.—*Pall Mall Gazette*.

HUMORS OF BUSINESS.

Newspaper offices are frequently visited by very amusing letters, and though to many minds the details of our own office may appear as chiefly made up of dry facts and figures, we are, nevertheless, often relieved by the receipt of humorous correspondence. Thus, for example, we have now before us a letter from a patentee who wishes an illustration of his machine to appear in our columns. In a note to our artist he says very quaintly, "If you please, you may represent the driver with broad shoulders, bilious temperament, prominent Grecian nose, heavy moustache, short hair, full whiskers, trimmed short, broad brimmed hat turned up at the sides."

Another correspondent, with a view to secure special attention to a very modest request, with an air somewhat serio-comic, says of himself, "On weekdays I am farmer, glazier, and homeopathic physician, and on Sunday I am a preacher of the blessed Gospel." A useful man, most certainly.