(No Model.)

E. G. LIND & K. P. GUSTAFSSON.

STONE DRESSING MACHINE.

No. 492,033. Patented Feb. 21, 1893.

Fig. 1.

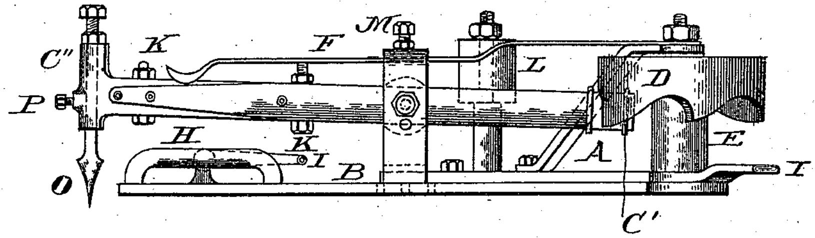


Fig. 2.

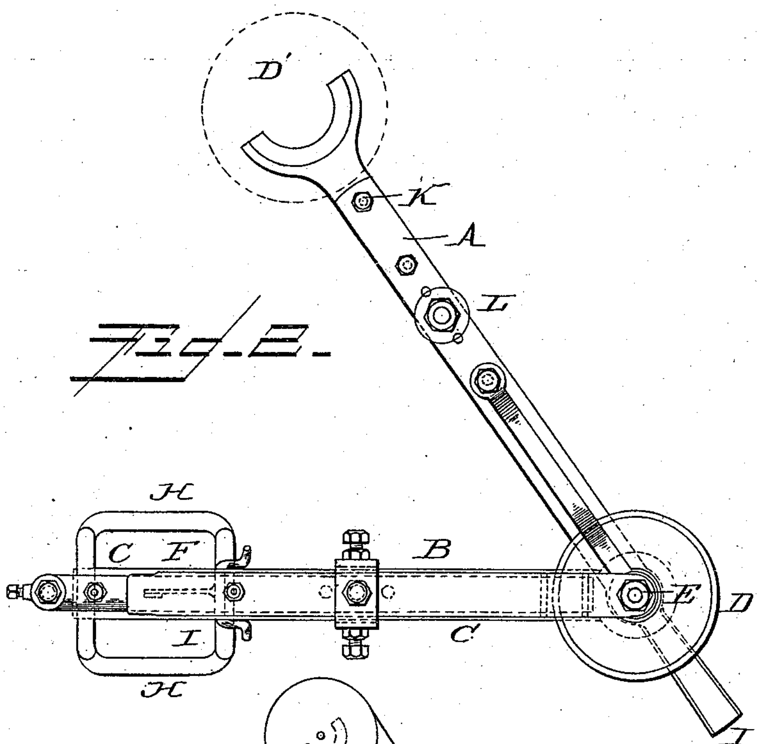
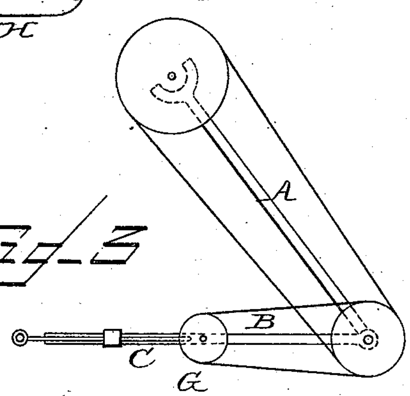


Fig. 3.



WITNESSES:

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[illegible]

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UNITED STATES PATENT OFFICE.

ERIK GUSTAF LIND AND KARL PETRUS GUSTAFSSON, OF NÄS-STATION, SWEDEN.

STONE-DRESSING MACHINE.

SPECIFICATION forming part of Letters Patent No. 492,033, dated February 21, 1893.

Application filed May 25, 1892. Serial No. 434,372. (No model.) Patented in Sweden January 14, 1892, No. 3,476.

To all whom it may concern:

Be it known that we, ERIK GUSTAF LIND and KARL PETRUS GUSTAFSSON, of Näs-Station, Dalarne, Sweden, have invented certain new and useful Improvements in Stone-Dressing Machines, (for which we have received Letters Patent in the Kingdom of Sweden, No. 3,476, dated January 14, 1892;) and we do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of our improved stone dressing machine; Fig. 2 is a plan and top view of the same; and Fig. 3 is a diagrammatic top view, illustrating a slightly modified construction of our machine.

This invention relates to machines for dressing stone, such as mill-stones and burrs, but while it is particularly adapted for such purposes, it may also be used for dressing any other kind of stone, such as building stone, ashlars, or ground stone,—in fact, this machine may be employed with advantage either for dressing stone, or else for lettering or otherwise figuring the face of the stone operated upon.

The object of our invention is to produce a portable machine of that type which can easily be changed from one place to another; which is easily placed in its operative position, and which will do its work with absolute certainty and accuracy.

With these objects in view our invention consists in the construction and combination of parts of the machine which will be hereinafter more fully described and claimed.

Referring to the drawings, the letter B designates the base plate of the machine, which has at one end a grip or handle H, by which it may be lifted and its position shifted upon the face of the stone to be dressed. At one end of this base plate B, opposite to the handle, is a standard, E, which forms a fulcrum or center for another plate A, which rests and slides upon the top of plate B. This plate A has an extension I, forming a handle whereby it may be removed to any desired angle with respect to the stationary plate B; one of the positions in which plate A may be moved, being illustrated in Fig. 2. This post or standard E not only serves as a bearing for the movable plate A, but also forms a central post or bearing for the pulley D, the under side of the rim of which is serrated as shown in Fig. 1.

The broken lines in Fig. 2 indicate a belt, which is placed around the pulley D, and also around another pulley D′, shown in broken lines in Fig. 2, which is located in the center or eye of the mill-stone to be dressed, or when in the dressing of building, ashlars, or other stone, at some convenient point in proximity to the stone to be dressed.

The movable arm A, is shaped at its free end to form a bifurcated semi-circular bearing, adapted to bear against the shaft which forms the center for the pulley D′. In operating the machine, the first thing is therefore to adjust bar A with its bifurcated free end against the shaft or some other firm support, and then adjust the arm or bar B as circumstances shall require in order to do the work upon the face of the stone under operation. Upon this bar B, which we call the face bar, because it rests upon the face of the stone to be dressed, is placed a bearing M, which forms a support for the vibratory lever C, the inner end of which projects under the serrated edge of pulley D, which is provided with a friction roller C′, while its outer end has a socket C″, for the insertion of the chisel or cutting tool O, which is held in place within its socket, by a binding-screw P. A leaf-spring, F, is fastened at one end upon the top of the standard or bearing E, and bears with its free end against the free end of lever C, as shown more clearly in Fig. 1. This lever C is made in two parts so as to be extensible by means of a screw K, by loosening which, said lever C, may be extended to any desired length. Upon the base plate B is also pivoted a bifurcated guide or bearing I′, which may be turned down in a horizontal position as shown on the drawings.

When the apparatus is in use; or when it is desired to stop the motion of lever C, this guide I′ is turned up at right angles to the

position shown on the drawings, so as to form a rest or bearing for the free end of lever C.

In Fig. 3 we have shown a somewhat modified construction of the arrangement of this device by supplying a supplemental pulley G upon the stationary arm or bar B, which has a belt connecting it with the pulley D. Where that construction is employed, the pulley G is provided with a serrated under edge, as shown on the pulley D, in Fig. 1, so that it will operate the under edge of the reciprocating lever C. But under ordinary circumstances, this supplemental pulley G is not necessary, as sufficient play or vertical motion may be imparted to the lever C by means of pulley D.

In order to permit the belt which connects the uprights and pulleys D and D′, to clear the bearing M, within which the reciprocating lever C is hung, I provide the movable bar A, with an idler or pulley shown at L, so that the belt is inside of this pulley, and will thereby be out of the way of the bearing M, when arms A and B are moved close together.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

The combination, in a stone dressing machine of the bar or face-plate B, provided with a handle H, an upright post or pintle E; the movable arm A, the pulleys D and D′, the latter having a serrated under edge; the spring F, and the reciprocating lever C, provided at its free end with a socket for the insertion of the cutting tool O; substantially as and for the purpose herein shown and set forth.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

ERIK GUSTAF LIND.
KARL PETRUS GUSTAFSSON.

Witnesses:
JOH. AUG. EKLOP,
C. Y. FORSBERG.