W. B. ARNOLD.

PEG-FLOAT MACHINE.

No. 184,746 Patented Nov. 28, 1876.

Fig. 1.

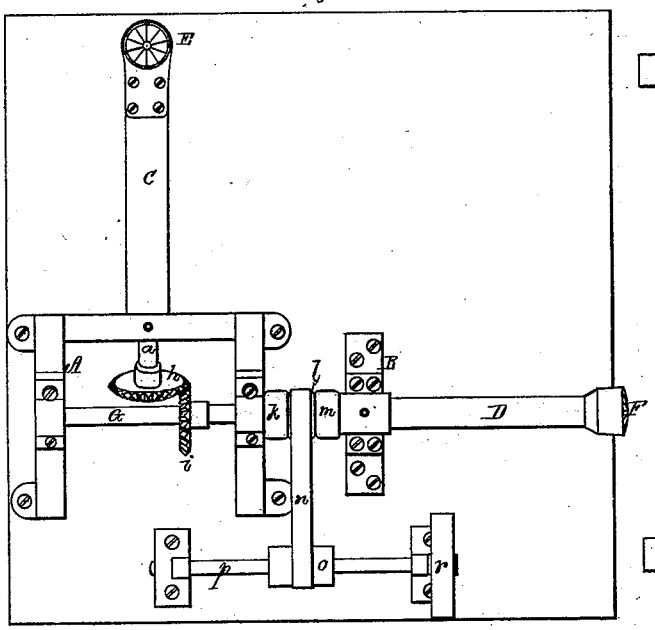


Fig. 4.

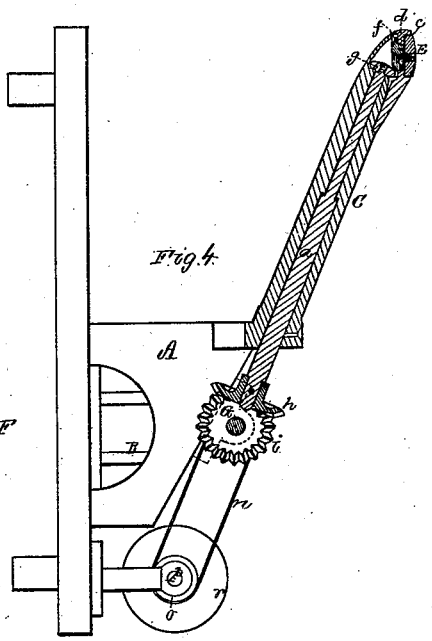
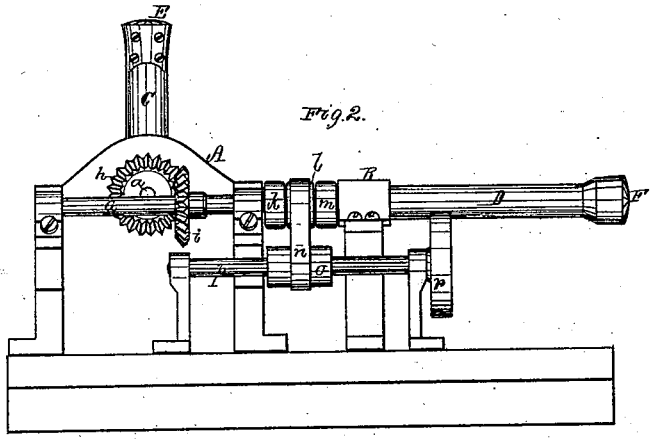
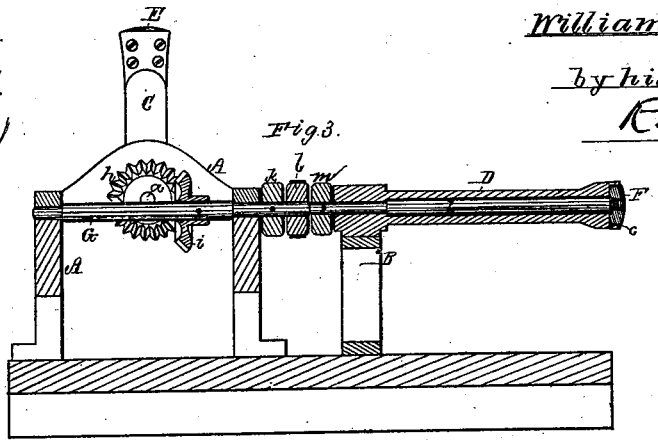


Fig. 2.



Witnesses.
S. W. Piper.
L. W. Müller

Fig. 3.



William B. Arnold
by his attorney
R. H. Eddy

UNITED STATES PATENT OFFICE.

WILLIAM B. ARNOLD, OF NORTH ABINGTON, MASSACHUSETTS.

IMPROVEMENT IN PEG-FLOAT MACHINES.

Specification forming part of Letters Patent No. **184,746**, dated November 28, 1876; application filed October 2, 1876.

To all whom it may concern:

Be it known that I, WILLIAM B. ARNOLD, of North Abington, of the county of Plymouth and State of Massachusetts, have invented a new and useful machine for rasping off pegs projecting from a sole into the foot-receiving space of a boot or shoe; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a top view, Fig. 2 a side elevation, Fig. 3 a longitudinal section, and Fig. 4 a transverse section, of the said machine, which, as shown, contains heel and toe raspers, and mechanism for effecting their rotary movements.

In the said drawings, A and B are two standards or separate frames, each of which is provided with a tubular arm extended from it, in manner as shown, one of the arms being inclined to the horizon and marked C, and the other being arranged horizontal and marked D, and in a line at right angles with the axis of the first one. In each of the said arms, and extending from it, in manner as represented, is a shaft, one of such shafts being marked *a* and the other *b*. Each arm has, at its outer end, an open cylindrical chamber, *c*, for receiving a rotary rasping-cutter. The cutter of the inclined arm is marked E, and has its axis at, or about at, right angles to that of the arm. The cutter F of the horizontal arm is fixed directly to the shaft extending through the said arm. The cutter E is fixed to a short arbor, *d*, which goes through and is supported within the bottom *c* of the receiving-chamber of the said cutter. On the lower end of the said arbor there is fixed a bevel-gear, *f*, which engages with a bevel-gear, *g*, fastened on the shaft *a*, upon whose lower end is secured another and larger bevel-gear, *h*, that engages with a bevel-gear, *i*, applied to a third shaft, G. This latter shaft, duly supported by the standard A, is arranged in line with the shaft *b* of the horizontal arm. Furthermore, on the shaft G is one driving-pulley, *k*, and one loose pulley, *l*, and next to the latter is a fast or driving pulley, *m*, which is fixed on the shaft *b*, the three pulleys being arranged as represented, so that a driving-belt, *n*, may be slipped from one to the other, as occasion may require. This driving-belt extends around and receives its motion from a long driving drum or pulley, *o*, fixed upon a shaft, *p*, provided with a band-wheel, *r*, all being arranged as shown.

When the belt *n* is "running," and is shifted from the loose pulley *l* upon the fast pulley *k*, the toe-rasper will be put in rapid revolution. So, by shifting the said belt to and upon the pulley *m*, the heel-rasper will also be put in revolution, provided the belt be running. Of course, when the belt is on the loose pulley *l*, no motion of either rasper E or F will take place.

By means of the inclined arm its rasper may be introduced within a shoe or the foot part of a boot, and such shoe or foot part may be moved so as to effect, while the rasper is in revolution, the rasping of the pegs from the shank to and throughout the toe of such shoe or boot. Next, by transferring the shoe or boot to the other arm and its rasper, the remaining pegs of the shank and heel may have their projecting points or parts rasped off even with the inner surface of the insole.

I do not claim, for cutting pegs out of a boot or shoe, a machine constructed as represented in the United States Patent No. 54,692, in which both of the cutter-shafts are so combined as to be revolved simultaneously. In my machine each shaft revolves independently of the other, whereby a great saving in friction and power is effected.

I claim as my invention as follows in a shoe-peg-rasping machine:

The machine, essentially as described, composed of the toe and heel raspers E F, their carrying-arms C D, and the rasper-revolving mechanism, provided with the driving-pulleys *k m* and the loose pulley *l*, to their shafts, arranged as described, so that their operative belt *n* may be moved or slid from one upon the other of said pulleys, as occasion may require, whereby one shaft will be at rest while the other is in motion.

WILLIAM B. ARNOLD.

Witnesses:

R. H. EDDY,

J. R. SNOW.