

G. M^c Kay
Shoe-Sole Machine.

N^o 42,211.

Patented Apr. 5, 1864.

Fig. 1

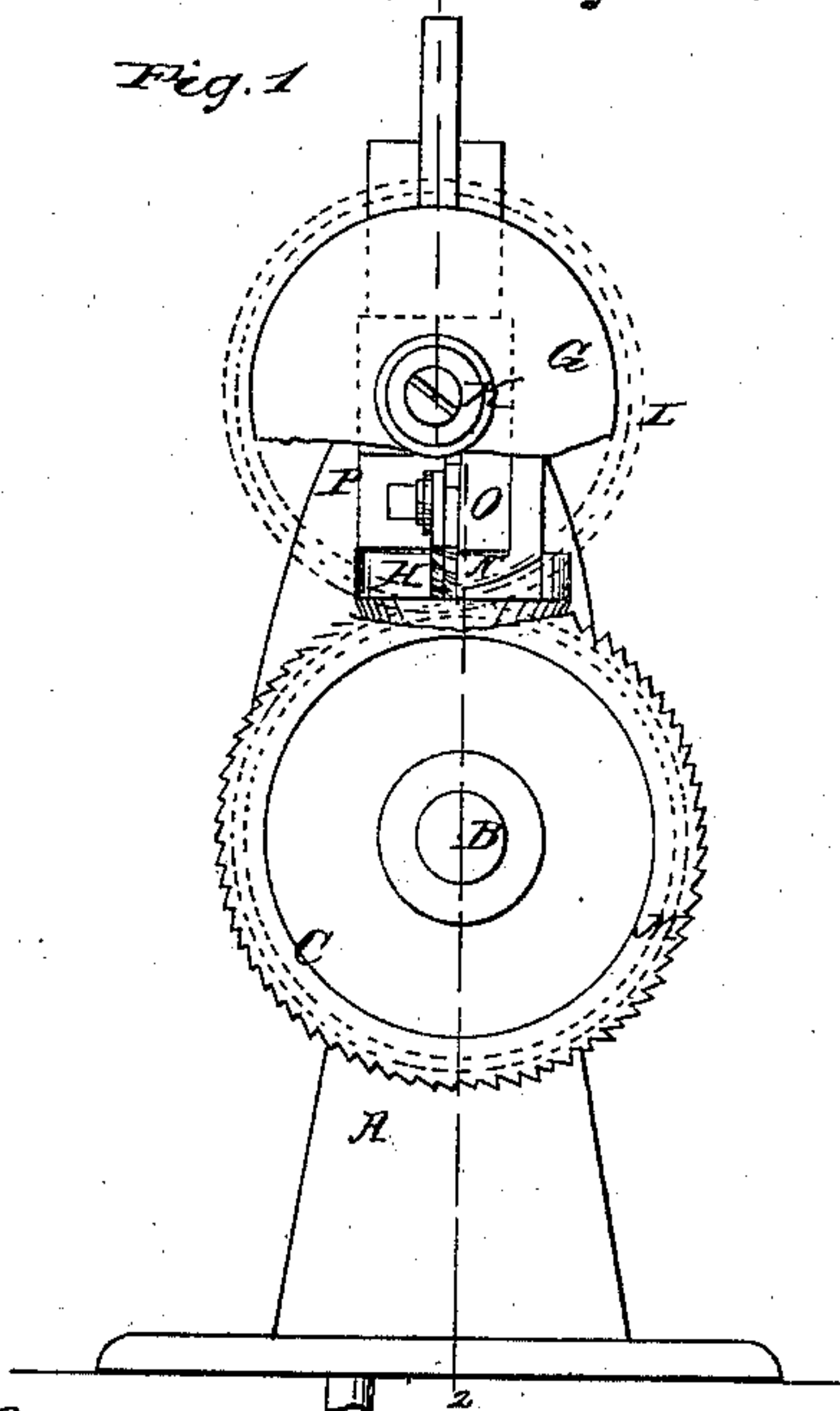


Fig. 3.

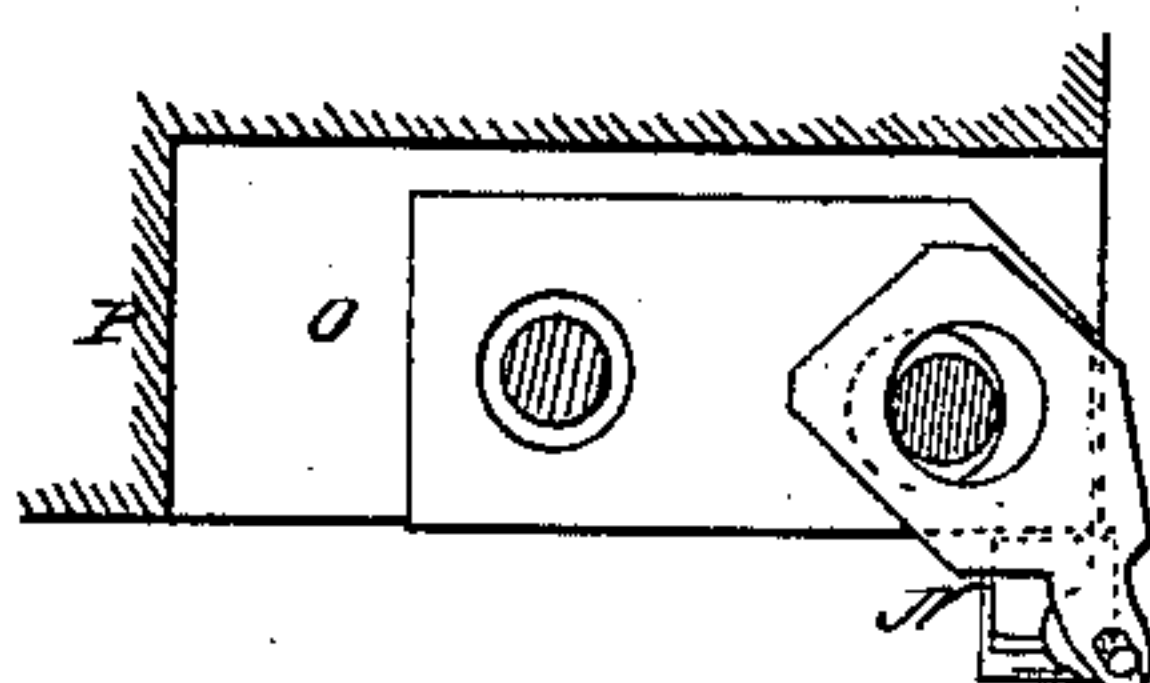
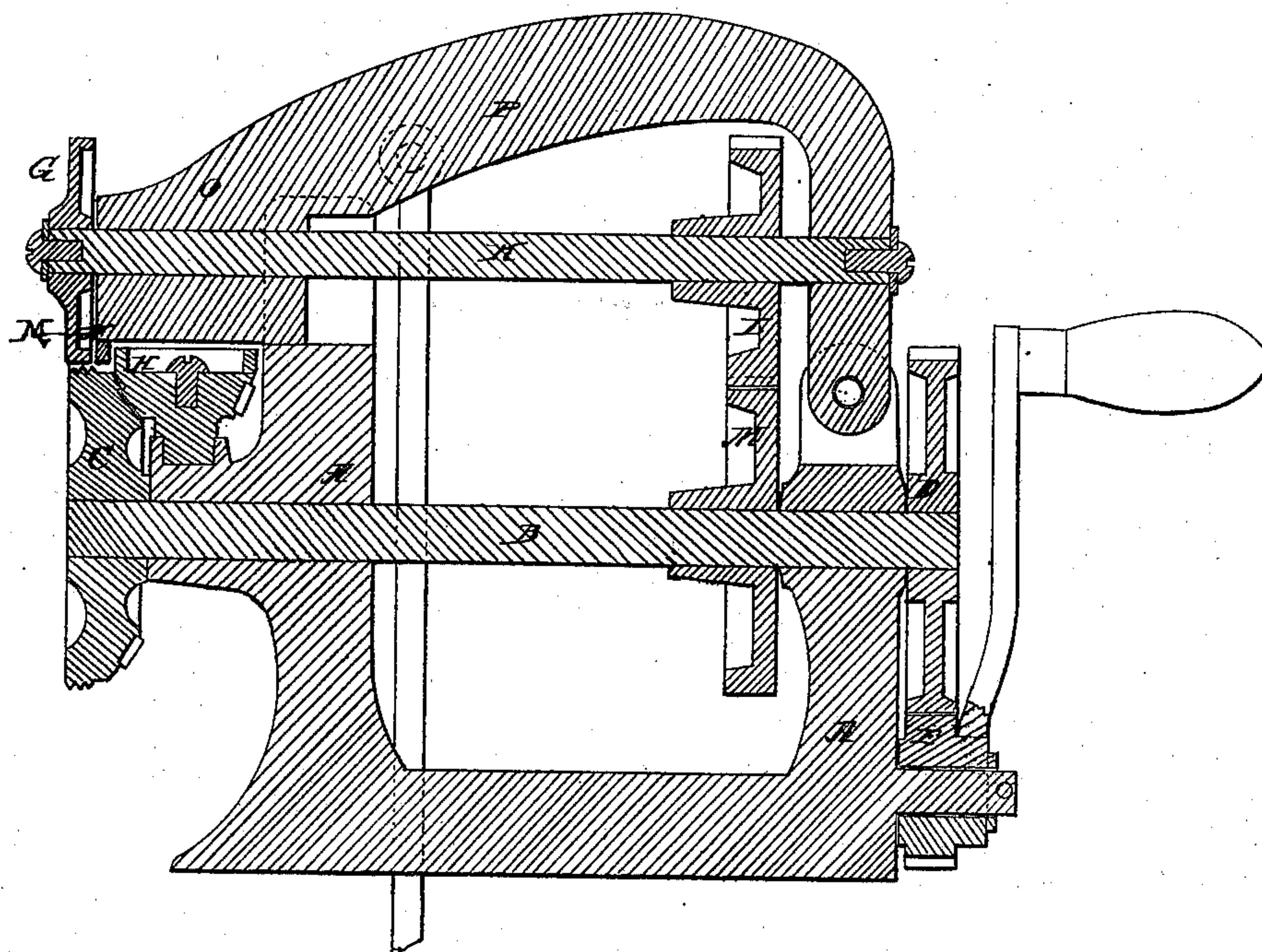


Fig. 2.



Witnesses

W. Crosby
A. Gould

Inventor

Gordon M. Kay

UNITED STATES PATENT OFFICE.

GORDON McKAY, OF BOSTON, MASSACHUSETTS.

IMPROVED CHANNELING-MACHINE.

Specification forming part of Letters Patent No. 42,211, dated April 5, 1864.

To all whom it may concern:

Be it known that I, GORDON McKAY, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Channeling-Machine; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

This invention relates to certain improvements in the channeling-machine invented by Curtis Stoddard, for which machine said Stoddard has applied for Letters Patent and has assigned all his right and interest in the same to me.

My invention consists in applying a feeding device to operate on the edge of the sole to be channeled, in combination with a feed wheel or wheels working against one or both surfaces of said sole, as in said Stoddard's machine; also, in combining with the edge-roll, feed-wheel, and channeling cutter or cutters a presser-bar to hold down the edge of the sole to the action of the channeling-tools.

My improvements are shown in the accompanying drawings—

Figure 1 representing a front elevation of a channeling-machine embodying the invention; and Fig. 2, a vertical longitudinal section of it, taken on the line $z-z$ of Fig. 1. Fig. 3 shows, in connection with Fig. 1, the relative position of the cutters and the presser-bar.

A denotes the frame-work of the machine; B, a horizontal shaft carrying at one end the serrated or toothed feed-wheel C, and at its other end a gear-wheel, D, meshing into and driven by a pinion, E, on a crank-shaft, F.

G denotes the top or presser roll, and H the edge or guide roll, the relative arrangement and disposition of these parts, and the situation of the cutters with respect to them, being the same, or substantially the same, as in said Stoddard's machine. In his machine, however, the presser and guide rolls were hung loosely on their shafts, acting only as guide and presser rolls, and having no feeding function, while I, by applying power to them, cause them to aid in feeding the sole

against the cutters. The rear face of the feed-wheel C is constructed with bevel gear-teeth, which mesh into similar teeth on the edge-roll H, as seen in Fig. 2, so that rotation of feed-wheel drives the said edge or guide roll. The shaft K, which carries the presser-roll G, extends through the machine, as seen in Fig. 2, and on this shaft I place a gear-wheel, L, to which motion is communicated from a gear, M, on the shaft B, by which means the presser-roll is driven with the feed-roll. Between the top roll, G, the edge-roll H, or just in rear of the teeth of the feed-wheel and over the plain surface on said feed-wheel (the acting surface of which is constructed substantially like that shown in said Stoddard's invention) I affix to the head of the lever P, which carries the presser-roll and channeling cutters or knives, a presser-bar, N, which is so fastened to the head as to be stationary with respect thereto, and extends up to or nearly to the cutting-edge of the cutter or cutters. The lower surface of this bar is in, or about in, the same horizontal plane with the lower surface of the presser-wheel G, and while the presser-roll serves to keep the part of the sole under it down upon the teeth of the feed-wheel, the presser-bar, operating in connection with it, keeps the edge of the sole in which the channel is to be made down to the action of the channeling-knives. Without the presser-bar, the edge of the sole is liable to bend up, causing the channel to be irregularly cut with respect thereto.

I claim—

1. Applying a feeding device to operate against the edge of the sole, in combination with a feed wheel or wheels, which operate against one or both surfaces of the sole, substantially as set forth.

2. So combining the presser-bar N with the presser-roll and with the feed-wheel that the operation of the presser-bar will be substantially as described.

GORDON McKAY.

Witnesses:

J. B. CROSBY,
FRANCIS GOULD.