

H & A. Phelps,
Cutting Soap.

N^o 58,473.

Patented Oct. 2, 1866.

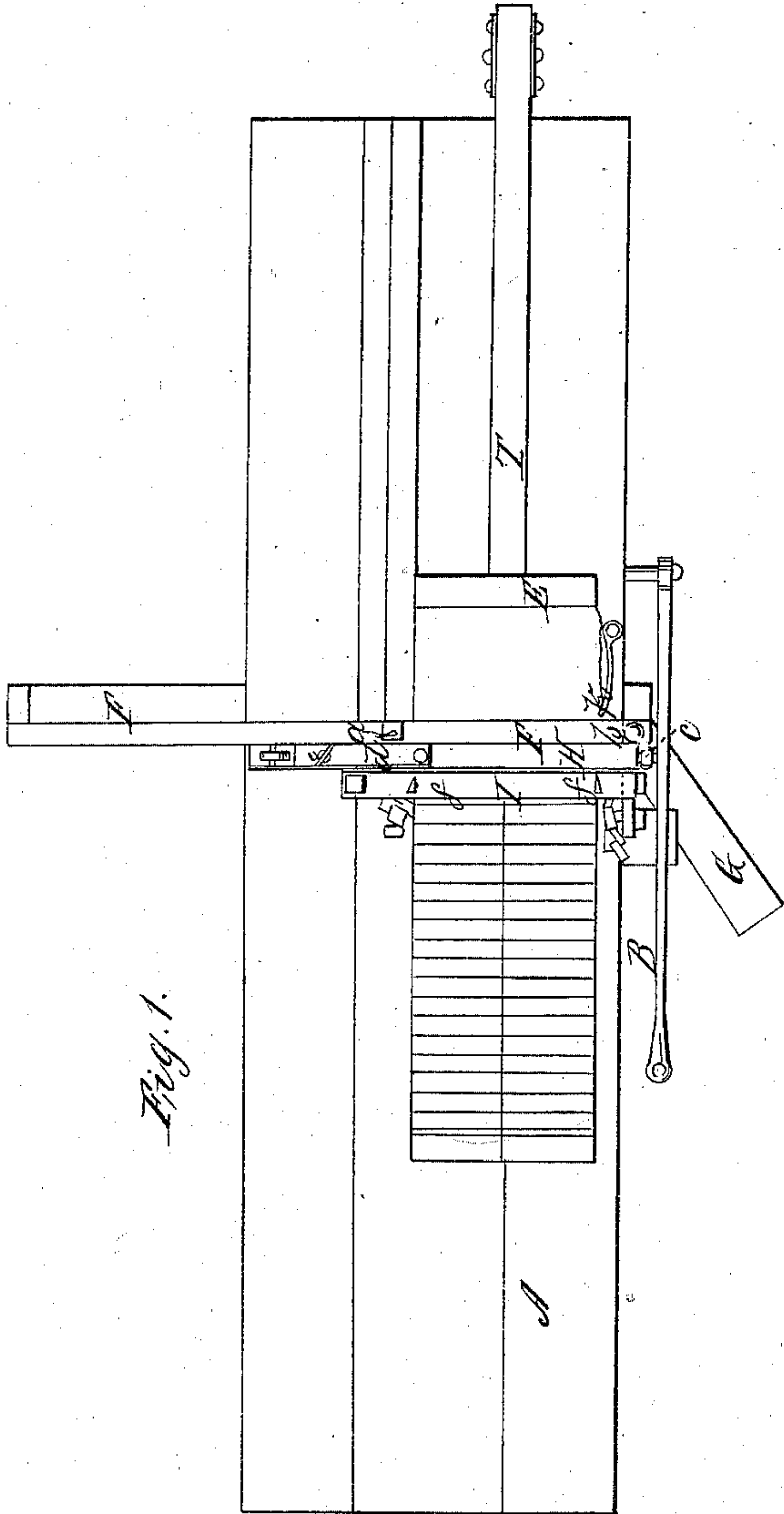


Fig. 1.

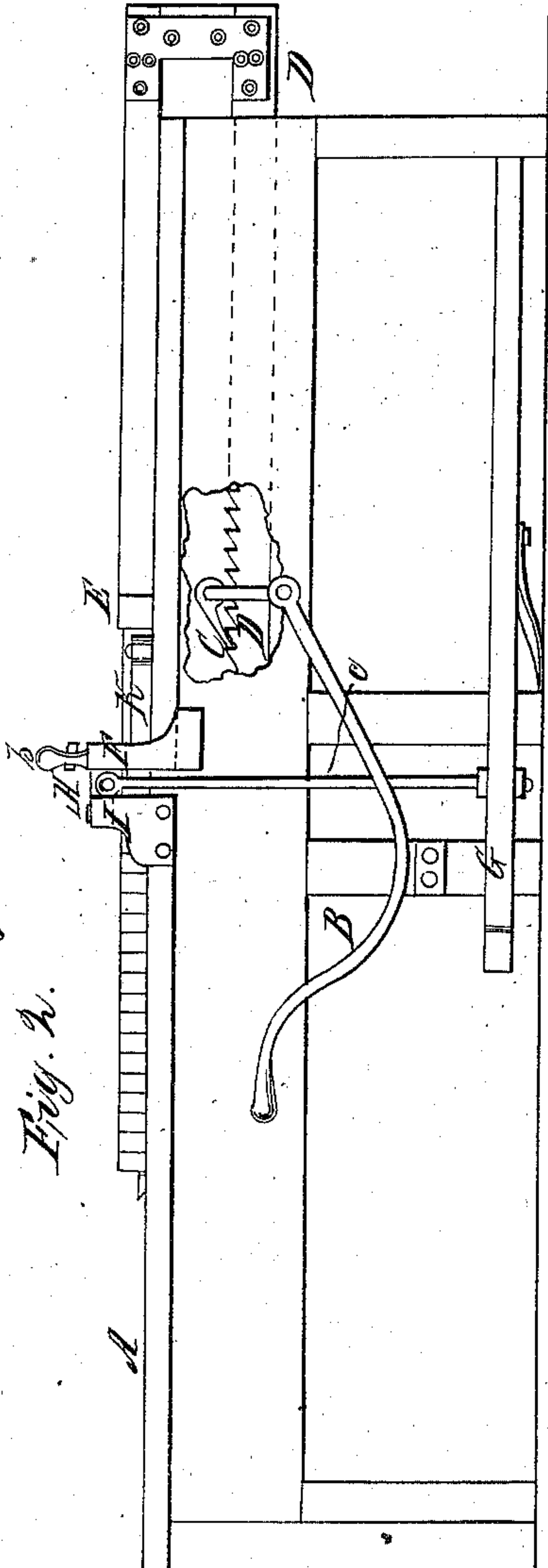


Fig. 2.

Witnesses:

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UNITED STATES PATENT OFFICE.

HARVEY PHELPS AND ALVAH PHELPS, OF ALBANY, NEW YORK.

IMPROVED APPARATUS FOR CUTTING AND STAMPING SOAP.

Specification forming part of Letters Patent No. 58,473, dated October 2, 1866.

To all whom it may concern:

Be it known that we, HARVEY PHELPS and ALVAH PHELPS, of Albany, in the county of Albany, in the State of New York, have invented a new and Improved Machine or Apparatus for Cutting and Stamping Hard Soap; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a horizontal or top view of our invention, and Fig. 2 is a side elevation of the same.

The apparatus consists of a substantial table, of about thirty inches in height, to which is applied a lever pawl-feed, a transverse sliding frame, into which the cutting-wire is strained, a vertical operating stamp bar or lever, which are to be operated at proper intervals, independent of each other; and still further on are placed vertical edging-knives, which cut the bars to a uniform length, and in the center, between said knives, a gaging-spur is placed, so that the bars may be divided in halves, unerringly, if it should be desired at any time afterward.

The object of this invention is to materially expedite the cutting and stamping of soap, and of making the bars in a uniform manner from the "slab," by the employment of simple mechanism, properly constructed and arranged, so as not to become deranged, but work smoothly.

To enable those skilled in the art to fully understand and construct the same, we will proceed to describe it as follows:

Similar letters of reference indicate corresponding parts in all the figures.

A, in both figures, represents the table to which the various devices are applied.

The feeding apparatus consists of a hand-lever, B, to which is secured a crank-shaft and pawl, C, which drops into the horizontal ratchet-piece D. Said pawl is thrown out of contact with ratchet D when it is desired to return the feed-gage E, by simply elevating the lever B to its full height, the pawl being so hinged as to admit of this.

The device which is intended to cut the slab into uniform bars, consists of an iron frame, F, having a steel wire, a, strained vertically from top to base therein, and so placed, also, that it

shall stand on either side of the soap slab at every stroke of the frame F, in order to admit of a free forward movement of the slab from contact with said wire. A knob or handle, b, is secured to near end of the transverse sliding frame F, for the purpose of operating the same, and represented as shown in Fig. 2.

Next in order comes the stamping of the bars.

It consists of a treadle or foot lever, G, arranged as shown in the drawings, and connected to a vertical rod, c, which is jointed at its upper end to the stamp-bar H, as shown, which in turn is hinged at its rear end to the table A. A spring, d, is riveted to the upper edge of said bar H, which has a set-screw, e, inserted for the purpose of varying and equalizing the pressure of the stamps which are secured underneath said bar H.

A transverse bar, I, securely holds two edging-knives, f f, which reduce the bars, after being severed from the slab, to a uniform length. A spur for gaging the bars into halves is also placed in the center between said knives. Underneath the bar I are placed and secured thereto strips of thin iron, which extend underneath the stamp-bar H, and on either sides of the stamps, and above a plane of their faces, in order to prevent the lifting of the bar of soap after being stamped. A tensioned wire may be substituted for the center-gagespur, if it is desirable to cut the bars in two.

A guiding-ledge, J, is secured in the manner shown in Fig. 1, and a spring, K, for the purpose of conducting the slab truly through the apparatus.

The operation of our invention is as follows: The slab of soap is placed on the bed in the manner indicated in the drawing, the feed-gage being placed behind it. The lever B is raised and depressed down on the stop indicated, with the left hand, then the right hand pulls or pushes the frame F a full stroke. The bar is next stamped by placing the foot on the lever or treadle G and depressing it. The lever is then released, and the whole is again elevated to its former position. Again, the hand-lever B is raised and depressed, and the severed bar of soap is moved forward to the edging-knives f f.

Having thus described our invention, what we desire to secure by Letters Patent, is—

1. The mode herein described for cutting and stamping soap, substantially as set forth.

2. The arrangement of the feed-guide E, cutting-frame F, sliding transversely to said feed-guide, in combination with the stamping-bar H and edging-knives *ff*, the whole constructed and arranged in order to operate as set forth.

3. The employment of a cutting-wire, *a*, tensioned in a transverse sliding frame, F, when

used in combination with an intermitting feed, as shown and described, and for the purpose specified.

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