2 Sheets--Sheet 1.

W. D. MAYFIELD.

Smoothing and Fluting Irons.

No. 164,012. Patented June 1, 1875.

Fig 1

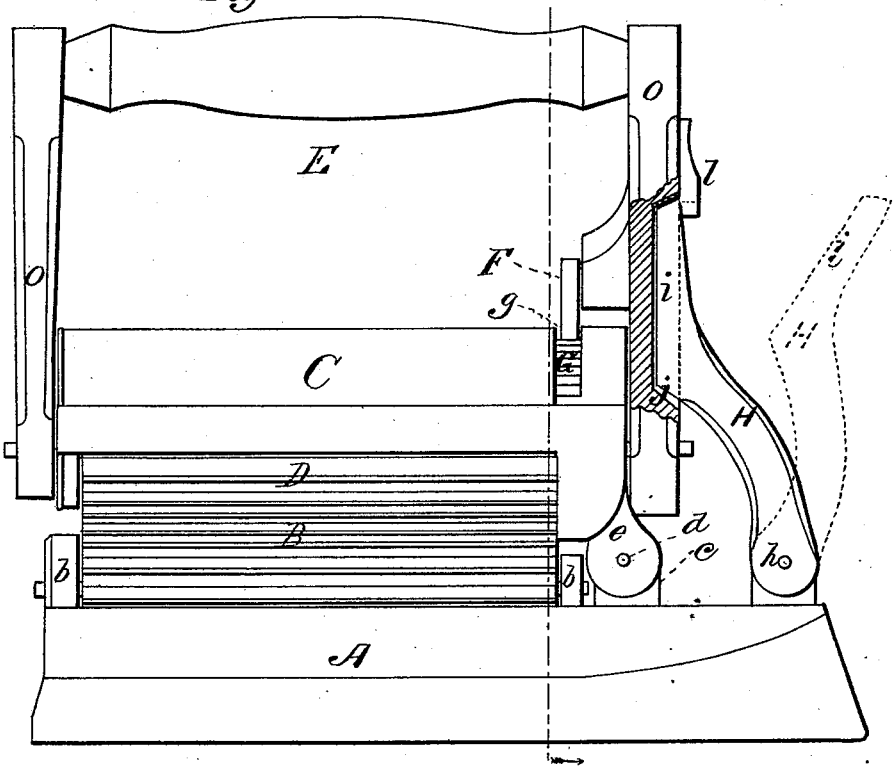

Fig 2

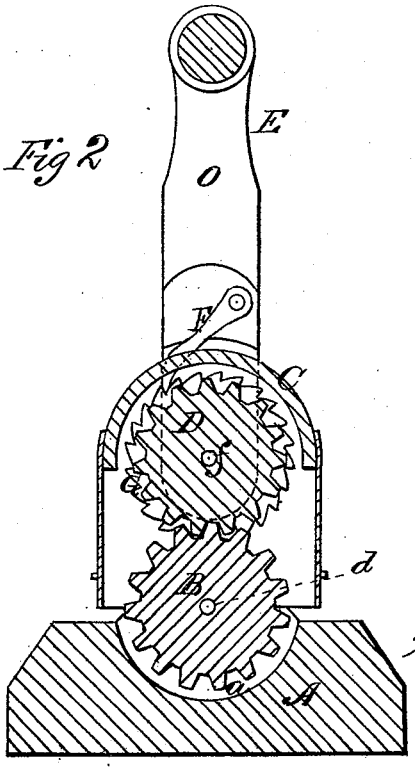

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Fig. 3.

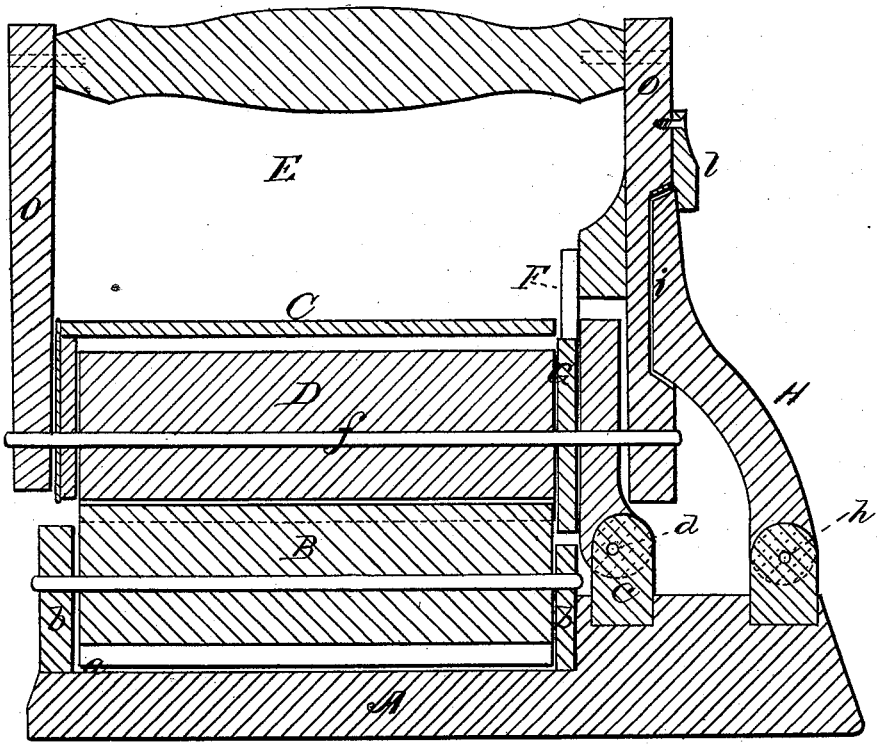
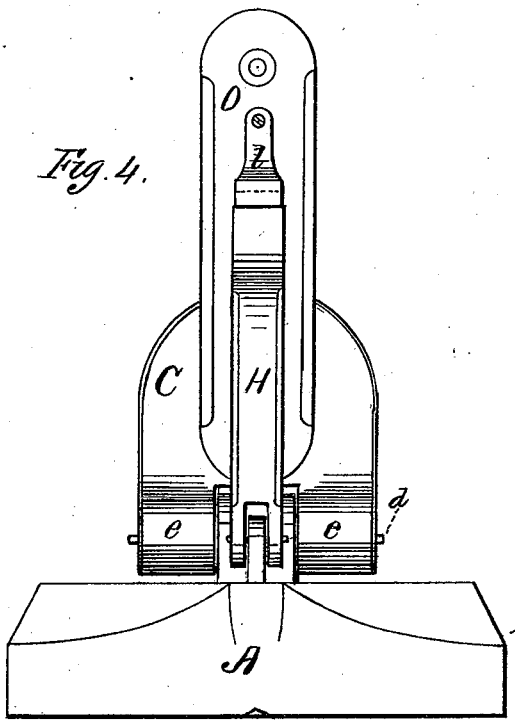


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM D. MAYFIELD, OF FORT WORTH, TEXAS.

IMPROVEMENT IN SMOOTHING AND FLUTING IRONS.

Specification forming part of Letters Patent No. **164,012**, dated June 1, 1875; application filed February 20, 1875.

To all whom it may concern:

Be it known that I, WILLIAM D. MAYFIELD, of Fort Worth, in the county of Tarrant and State of Texas, have invented a new and valuable Improvement in Smoothing and Fluting Irons; and I 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, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a side elevation of my combined smoothing and fluting iron. Fig. 2 is a transverse vertical sectional view of the same. Fig. 3 is a longitudinal vertical sectional view, and Fig. 4 is an end view.

This invention has relation to improvements in smoothing-irons, which are provided with fluting-rollers, heated by, and at the same time as, the smoothing-plate; and the nature of the invention consists in combining with a fluting-roller, recessed into the smoothing-plate, and rotating thereon in suitable bearings, and with a second roller arranged in bearings above the first, a vertically-vibrating handle for the said smoothing-plate, having a pawl adapted to engage with a ratchet-wheel rigidly secured to the upper fluting-iron, and to be locked in place for operating the smoothing-plate, whereby an actuating-handle is provided for the fluting-rollers, and for the smoothing-plate, in common, which is adapted to be locked for operating the latter, or unlocked for actuating the former, all as will be hereinafter more fully explained.

In the annexed drawings, A designates a sad-iron smoothing-plate, of the usual well-known form, construction, and material, in which is formed a semi-cylindrical recess, *a*, at each end of which are erected standards or lugs *b*, affording bearings for a horizontally-arranged vertically-rotating corrugated fluting-roller, B. The front or sharp end of smoothing-plate A is provided with an upwardly-projecting eye, *c*, to which is hinged, by means of a rod, *d*, and lugs *e*, a vertically-vibrating hollow shield, C, the rectangular ends of which afford bearings for a second fluting-roller, D, arranged above the first, with its corrugations engaging in the depressions between those of roller B, as shown in Fig. 2.

The shaft *f* of roller D extends from end to end of shield C, and projects a certain distance beyond its ends, thus affording journals for the end bars O, a vertically-vibrating handle, E, having a pawl, F, adapted to engage with the teeth of a rack-wheel, G, rigidly secured to or forming a component part of roller D, which pawl communicates therewith through the medium of a slot, *g*, cut through the walls of the shield, as shown in Fig. 1.

By this means, when a vertically-reciprocating vibratory motion is imparted to handle E, a rotating movement is imparted to the upper roller, and through it to the lower roller, and an effective and convenient fluting device is produced. This handle is locked to the fluting attachment and to the smoothing-plate, thus rendering it capable of being used as an ordinary sad-iron, by means of a vertically-vibrating locking-arm, H, pivoted at *h* to the smoothing-plate, with its preferably flattened end *i* adapted to be received in a correspondingly-shaped recess, *j*, in the end bar O of handle E, which end is capable of being locked into and released from the said recess by means of a vibrating latch, *l*, as shown in Fig. 1.

Shield C, to which handle E is attached, is capable of vibrating upward upon rod *d*, thus separating the upper from the lower fluting-roller, and allowing fabrics to be operated on to be conveniently placed between the same. It also serves as a shield to prevent the hand of the operator from being scorched by the radiation of heat from the rollers and smoothing-plate.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a combined smoothing and fluting iron, the vertically-vibrating actuating-han-

dle E O, having pawl F, in combination with the fluting-rollers D B, the former having a rack-wheel, G, substantially as specified.

2. The actuating-handle E O, having recess *j* and latch *l*, in combination with the pivoted lever H, provided with flattened end *i*, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM DUDLEY MAYFIELD.

Witnesses:
W. S. PENDLETON,
JESSE JONES.