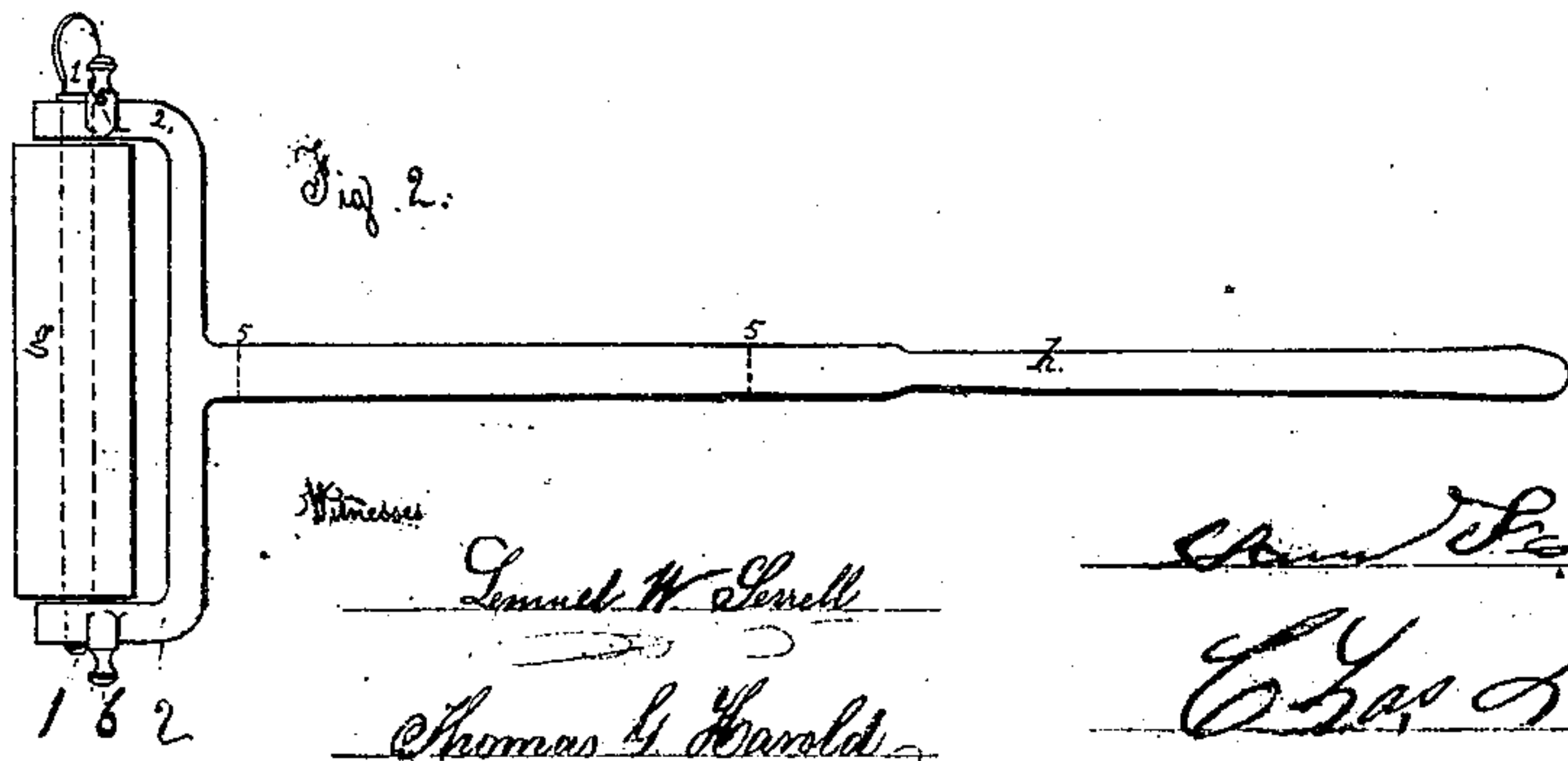
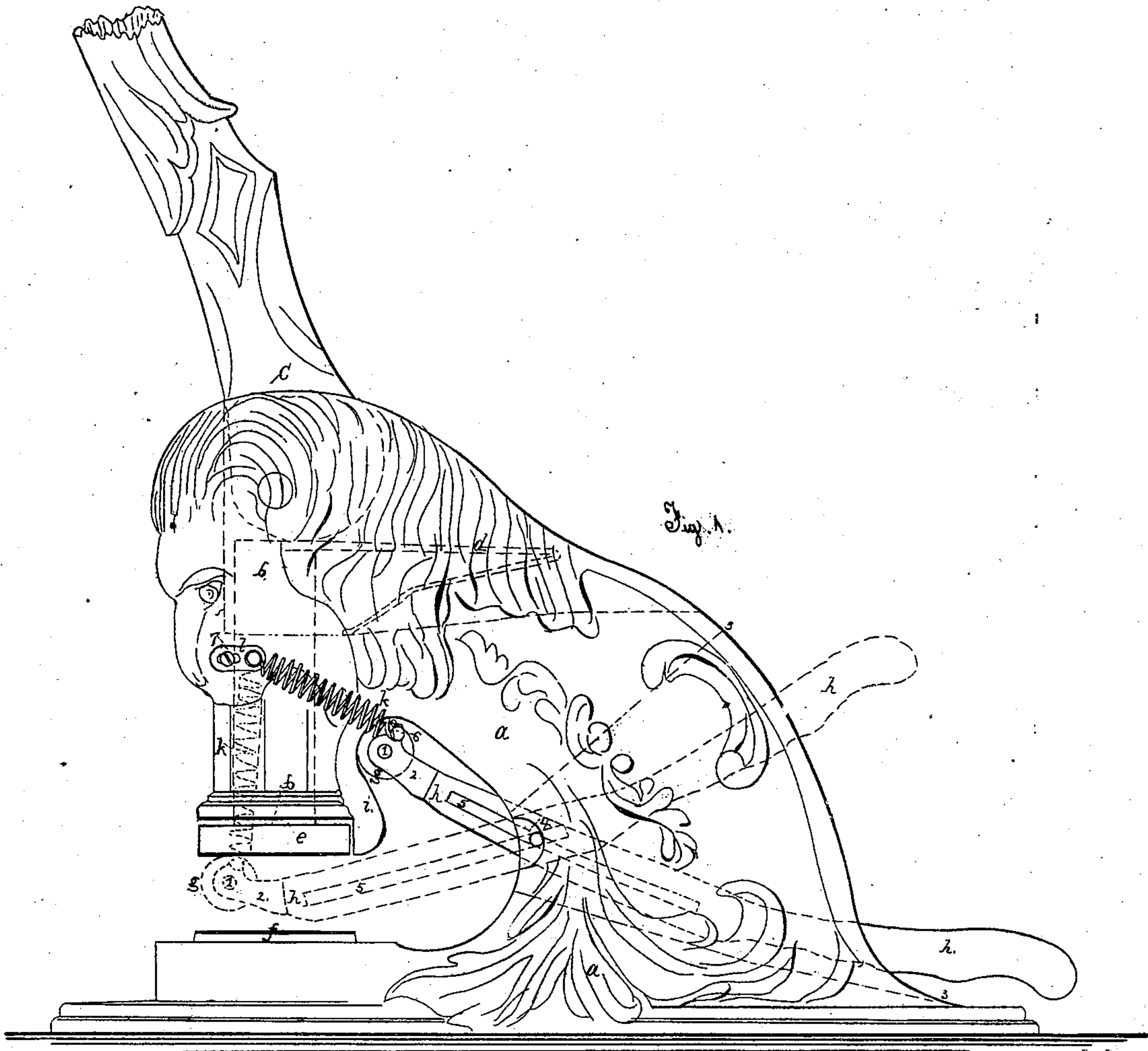


Smith & Lockie,  
Hand Stamp.

No. 17,753.

Patented July 7, 1857.



Witness

Samuel W. Serrell

Thomas G. Harold

Samuel Smith

Chas. Lockie



# UNITED STATES PATENT OFFICE.

SAML. J. SMITH AND CHAS. LOEKLE, OF NEW YORK, N. Y.

## EMBOSSING AND PRINTING PRESS.

Specification of Letters Patent No. 17,753, dated July 7, 1857.

*To all whom it may concern:*

Be it known that we, SAMUEL JOSEPH SMITH and CHARLES LOEKLE, of the city, county, and State of New York, have invented, made, and applied to use certain new and useful Improvements in Embossing and Lever Printing Presses; 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 drawing, making part of this specification, wherein—

Figure 1 is a side elevation of our press and Fig. 2 is a plan of the inking roller and handle.

Similar marks of reference denote corresponding parts in both figures.

Presses have heretofore been made for embossing names and devices on envelopes, paper, and other articles, the same being effected by a die with the letters or other device engraved therein, acting against a counter die with raised letters, which counter die is formed of fusible alloy; by this means the letters or devices are raised on the paper inserted between, but by this means there is no ink or coloring matter impressed on the paper to prevent obliteration of the embossing by pressure, hence the operation of printing onto envelopes with seals and names has heretofore been done almost entirely by screw presses and a leather or similar elastic counter die, and that in a manner which can only be performed by a person thoroughly practiced, and cannot be performed in counting rooms, banks, offices, or similar places.

The nature of our said invention consists in so constructing an ordinary hand embossing press, and applying a peculiar inking apparatus thereto, that embossing and printing can be performed with the greatest ease and precision, rendering our press applicable to use in banks, offices, counting rooms and other locations where a regular printers' press would not be available, and this we accomplish as follows:

*a* is the ordinary press head, fitted with the die stock *b*, lever cam *c*, and lifting spring *d*, shown by dotted lines, as usual.

*e* is the die and *f* is the counter die. This die *e* is to be of any desired character and the metal counter die *f* is formed by impressing the die *e* in fusible alloy, as usual.

The parts thus far will produce an embossing without colors, and if ink were ap-

plied to the surface of die *e*, the intervening paper would not be properly printed, for the metal counter die would not give an impression, and if a leather or similar counter die were used, there would not be sufficient embossing by this small hand press; we, therefore, apply to the counter die *f* a small amount of india rubber or gutta percha varnish and then take a thin sheet of gutta percha previously softened by heat, stretch it over die *f*, and firmly impress die *e* by the lever *c*; this gives a slightly elastic surface to cause an impression of ink from the die *e* to be made in a perfect manner on the intervening paper, and at the same time the metal raised work of the lower dies produces the desired embossing.

The die *e* is to be inked as follows: *g* is a suitable elastic roller on a pin 1 that passes through said roller and the jaws 2, 2, of the lever *h*, and said pin is screwed at one end so as to be held in place or be removable for the purpose of cleaning the said roller *g*; and this lever *h* passes through a mortise in the press head, as shown by dotted lines at 3, 3. 4 is the fulcrum pin of the lever *h*, passing through a slot 5 in said lever *h*. *i* is an ink working surface, a table formed as shown against the side of the die head block. *k, k*, are springs, one on each side of the head block, attached at one end to projections 6, 6, from the jaws 2, 2, of the roller *g* and at the other end to adjusting links *l l*, attached to the head block by screws 7, 7, in such a manner that the power of each spring can be regulated to cause a uniform inking operation by adjusting said link and then tightening the screw 7. Suitable printing ink is now to be placed on the table *i*, and the roller worked up and down thereon until the ink is thoroughly distributed on the roller; the springs *k, k*, acting to draw the roller *g* to the bed *i*; the rear end of the lever is then to be elevated so as to bring the roller *g* beneath the die *e*, as shown by dotted lines, and said roller is to be worked backward and forward until the die is thoroughly inked, when the roller is again returned to the table *i*, and the impression made on the paper placed over the die *f*. The length of the slot 5 is to be so regulated that the roller *g* cannot pass beyond the edge of the die *e*. It will be apparent that said die *e* may be of any desired character, with either sunk or raised letters or other devices. And the peculiar manner of arranging the relative



positions of the die *e*, table *i*, and springs *k*, *k*, insures the correct action of said springs *k*, *k*, to cause the inking roller to press onto either the inking table or die, as specified.

5 We do not claim a raised metallic counter die for embossing, neither do we claim gutta percha or other elastic substances for the counter die, because this is well known in various kinds of printing presses, but we are  
10 not aware that the metallic counter die, which is necessary for embossing with a hand lever press, has ever before been covered with a thin coating of gutta percha to cause a perfect impression of the ink from  
15 the die simultaneously with the embossing from the metallic counter die.

What we claim, and desire to secure by Letters Patent, is—

1. The arrangement of the inking table *i*,

die *e*, spring *k*, roller *g*, and its lever *h*, substantially as and for the purposes specified. 20

2. We claim the raised metallic counter die for embossing, when covered with a thin coating of gutta percha, to enable said metallic counter die to give a perfect impression 25 of ink from the embossing die on those parts of the paper that are not raised by the embossing die, simultaneously with said embossing, substantially as specified.

In witness whereof we have hereunto set 30 our signatures this seventh day of March, 1857.

SAML. J. SMITH.  
CHAS. LOEKLE.

Witnesses:

LEMUEL W. SERRELL,  
THOMAS G. HAROLD.