

H. J. Bailey.

Machine for Making Bar Lead.

N^o 9,814.

Patented Jan. 29, 1869.

Fig. 3.

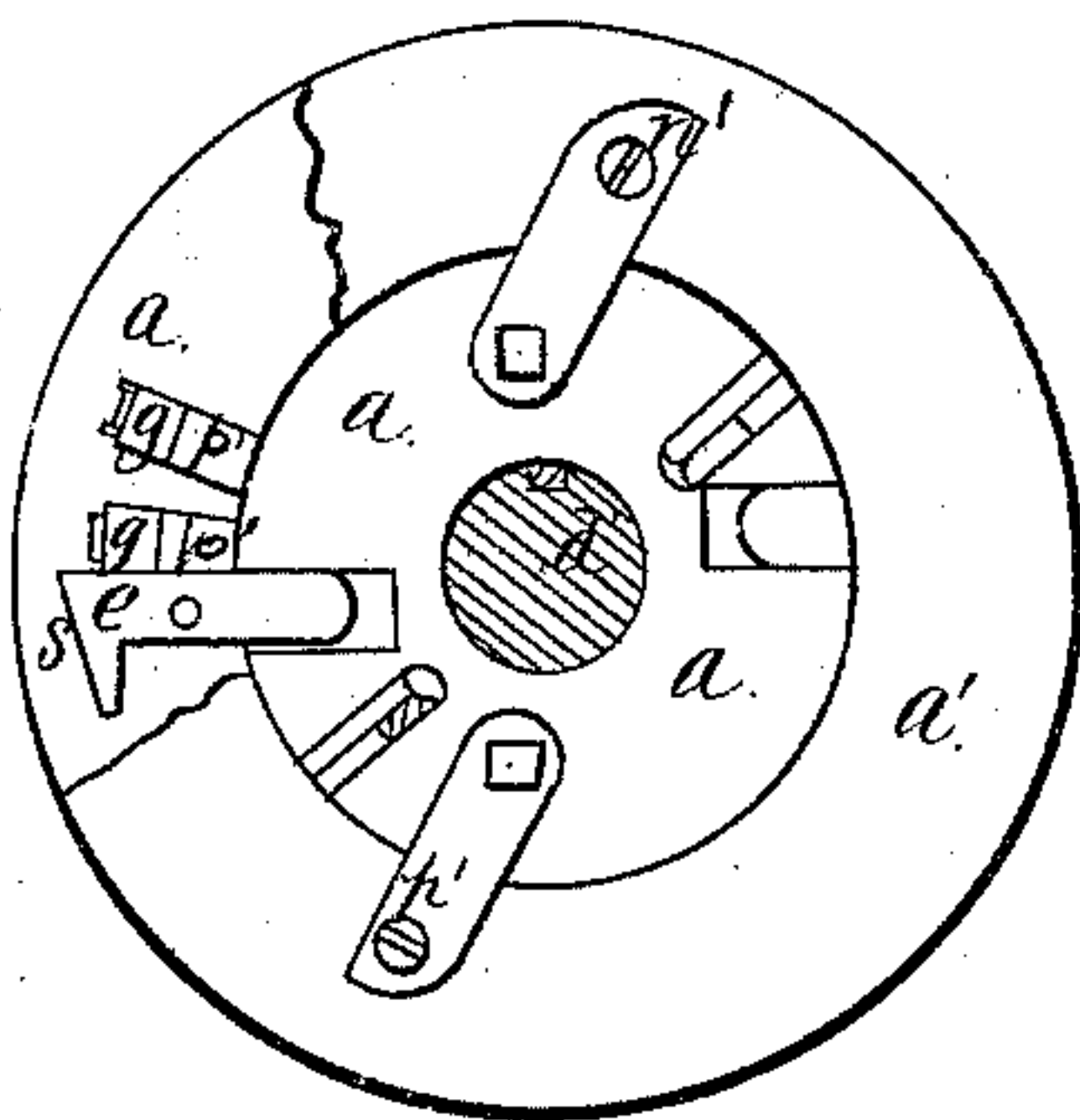


Fig. 2.

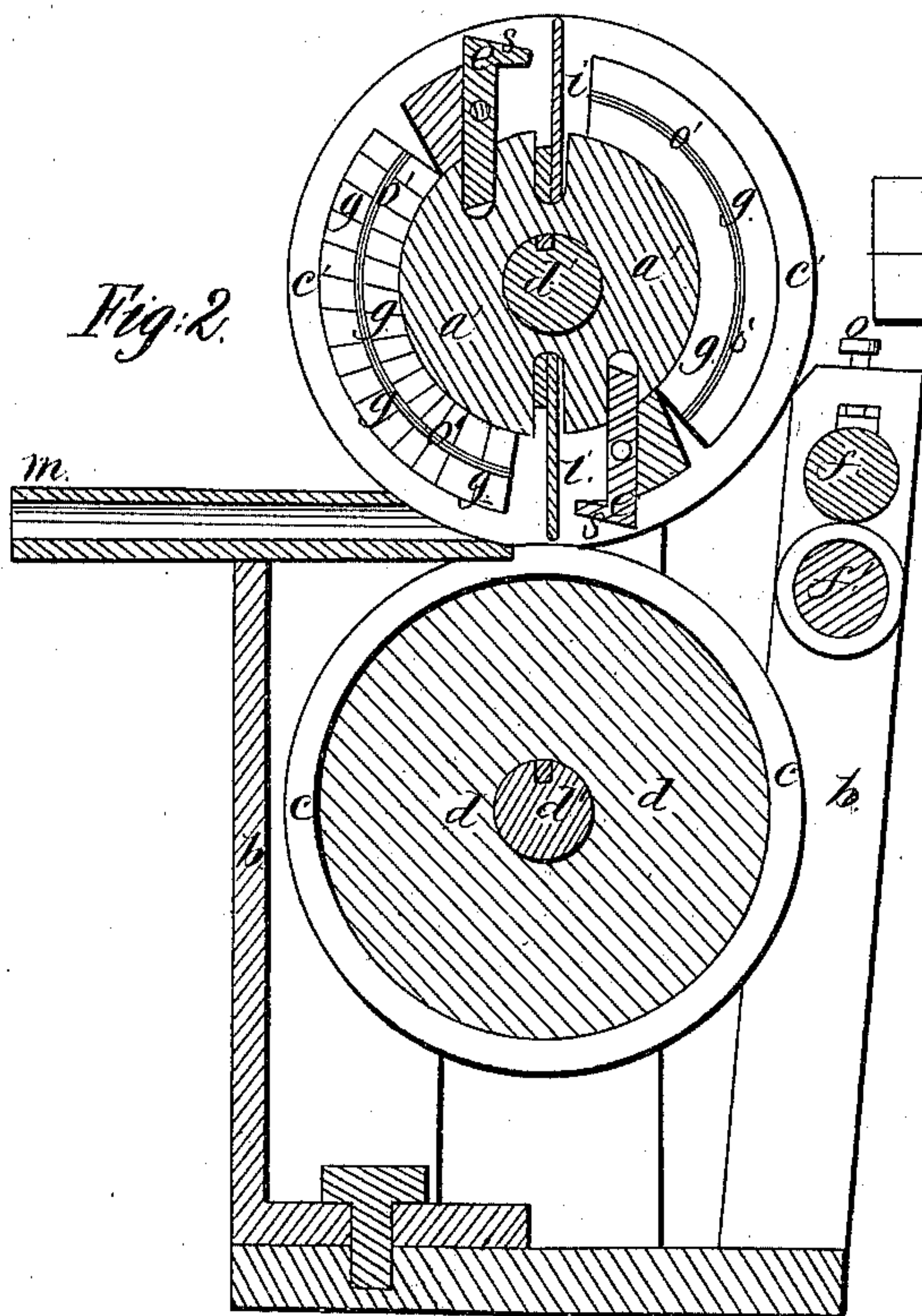


Fig. 1.

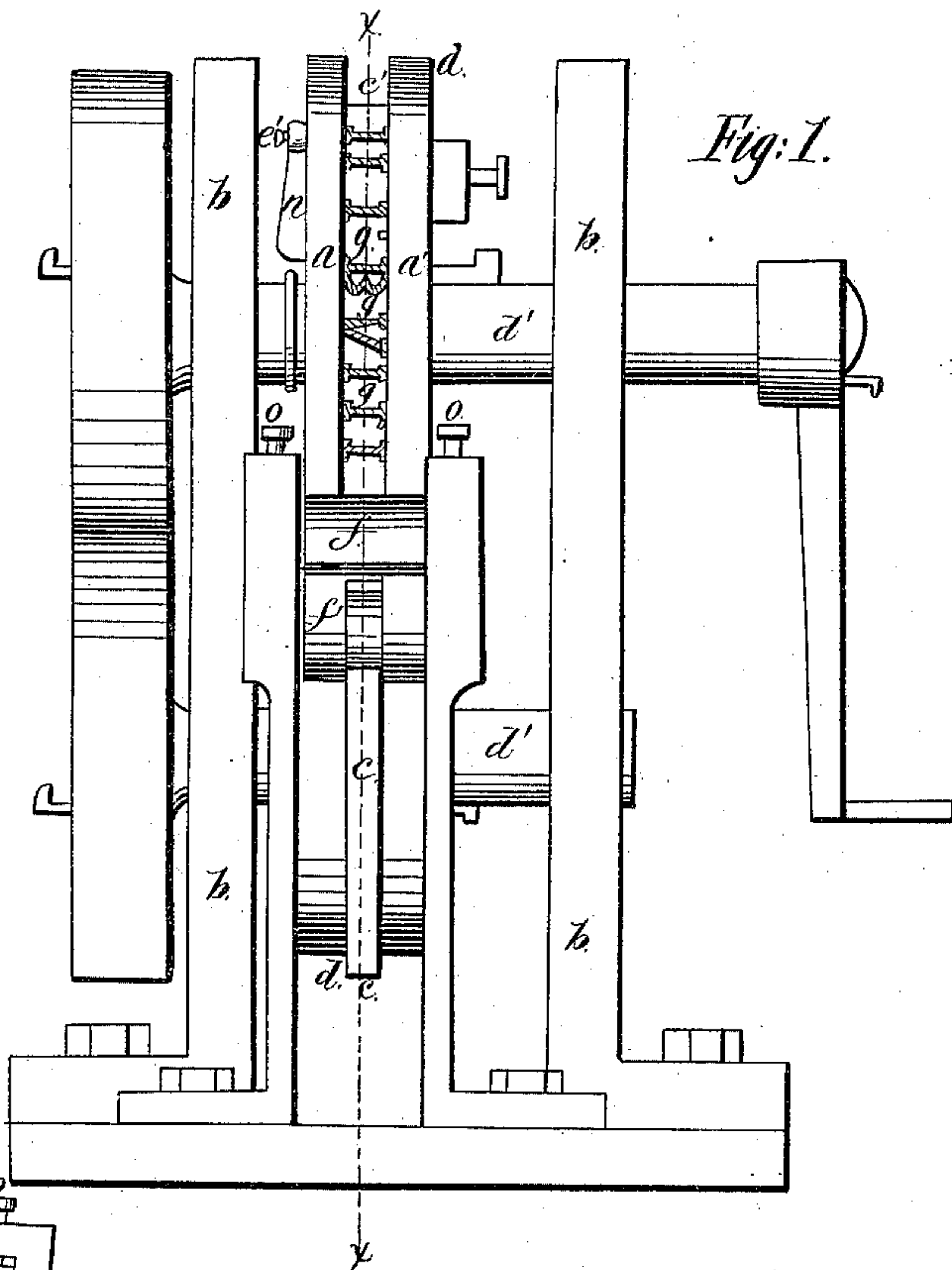
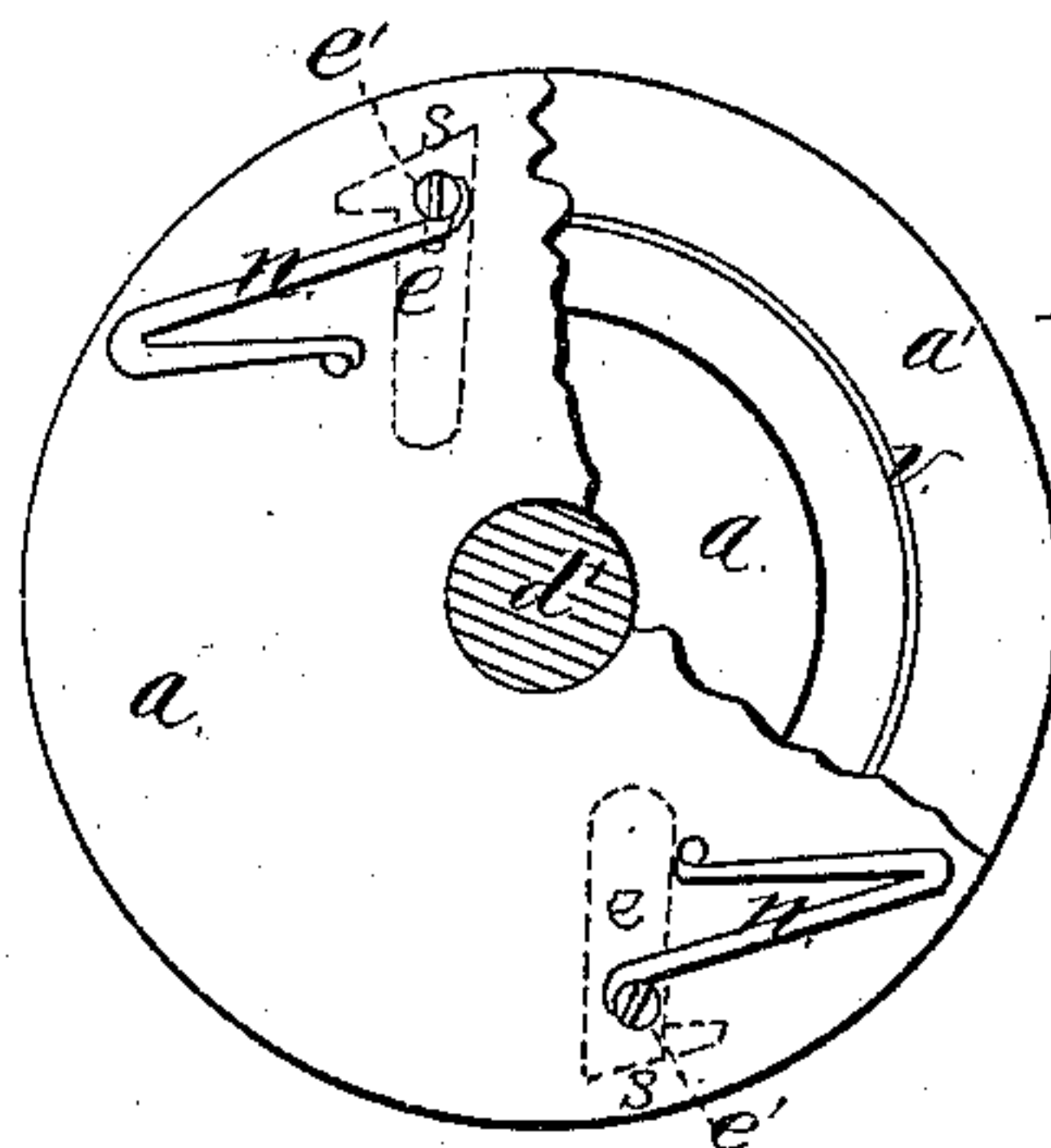


Fig. 4.



Inventor.

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Witnesses:

*Thos. B. Kerr.
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HARRY J. BAILEY, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 91,814, dated June 29, 1869.

IMPROVED MACHINE FOR PREPARING BAR-LEAD.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, HARRY J. BAILEY, of the city of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improved Machine for Making Bar-Lead; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a front elevation of my improved marking-machine;

Figure 2 is a vertical section along the line *x-x*, fig. 1;

Figure 3 is a side elevation, partly in section, of one side of the marking-rolls and dies; and

Figure 4 is a like view of the opposite side.

Like letters of reference indicate like parts in each.

Lead for a retail trade is generally drawn out into long bars, which are cut into bars of shorter lengths, and usually stamped with the name or trade-mark of the manufacturer or seller.

The better to meet the demands of the retailer, it has become customary for the manufacturer, in filling an order for bar-lead, to stamp each bar with the name or trade-mark of his vendee. To do this work, cylindrical rolls have been used, one of the rolls having in its cylindrical face a die of the name or trade-mark of a vendee, and consequently as many such rolls have been required by each manufacturer as he has customers. The expense of such rolls is considerable, as also is the work of changing them.

By my improvement, I make a single pair of rolls answer for such use, by so making one of the rolls that removable dies for marking may be used; and

The nature of my invention consists in the construction of an improved machine for marking and cutting lead bars, and in the improved mode hereinafter set forth of marking and cutting such bars to prepare them for market.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The frame-work *b* may be of any suitable construction and shape.

In this frame *b*, I hang two horizontal shafts, *d' d'*, and adjust thereon the cylindrical rollers *d d*.

The lower roller has a collar, *c*, on its cylindrical face, of the breadth of the bar of lead to be cut and marked, which plays into a groove, *c'*, in the face of the upper roll.

The upper roll is made in two sections, *a a'*, so that when the two sections are put together, as in fig. 1, they will give a grooved cylindrical roller, except at those places where it is mortised for the insertion of the type, a cutting-device and guide. One of these sections, *a*, is fixed on its axle, and the other is movable.

At any suitable point a mortise is made between the sections *a a'*, and a guide, *e*, is fixed therein.

This guide *e* is held in place by a screw, *e'*, passing through one of the sections *a*, and working in a slot.

This screw is fastened to a spring, *n*, so that the guide is held with the required degree of rigidity to its place, or may give slightly under a considerable pressure.

The outer end of this guide *e* terminates in a bevel-faced head, *s*, the side opposite the bevel being straight, and the bevel face being inclined toward the discharging or rear side of the machine.

In another mortise made between the sections *a a'*, and just in the rear of the guide *e*, I insert a fixed chisel or cutter, *i*, both the cutter *i* and guide *e* being made to work in the same plane with the removable type *g*, which is adjusted in a mortise made between the sections.

At the front of the machine are two feed-rollers *f f'*, of any suitable construction, and properly supported and adjusted by pressure screws *o*.

At the rear of the machine is a straightening and discharging-guide, *m*, with an aperture equal to or a little larger than the size of the lead bars to be passed through, of a length necessary to secure the object presently to be stated, say from six to twelve inches, with one end set close to the "part" or division of the rolls, and the other extending out at right angles.

The object of this discharging-guide is to straighten the bars of lead after they have passed through between the rolls, by which operation they are liable to be twisted or bent.

The type *g*, by which the marking is done, may be made up of single letters, or cast in a single die. This type or die bears the name or trade-mark, or other desirable designation, to indicate the buyer or seller, or the brand or quality of the article.

A groove, *o'*, is cast along one side of the type *g*, so that by a collar, *u*, on the side of the section *a'*, corresponding in position thereto, it will be held in position.

The operation of the machine is, then, as follows:

A long bar of lead, as it comes from the press, is inserted between the feed-rollers *f f'*, and passed along between the main rolls, which take a bite on it, and carry it forward. As it passes through, the impression of the type *g* is made on it, the cutter severs it into suitable lengths, and the guide *e*, following immediately after, presses down the freshly-cut end of the bar coming through, prevents it hugging the upper roll, and causes it to enter the discharging-guide *m*, through which it passes, and is straightened as it passes.

The type *g* being removable by loosening the screws *n'* and setting back the section *a*, the type can be changed by the manufacturer so as to stamp his lead

for his different customers. This requires but a little time and trouble. The lead bars are thus rendered more marketable, with little or no extra expense.

By the above operation, the rough bar from the press in passing through the machine is marked, cut to the required length, straightened, and delivered into the packing-box, ready for transportation, with less expense and time, and in a more marketable condition, than by the modes previously in use.

In the drawings, I have shown a machine furnished with devices for cutting and marking two bars at a revolution. If so preferred, it may be so constructed as to cut off one, three, or more. The shape of the head of the guide *e* may be varied somewhat without affecting its function, which is to cause the end of the bar to enter the box *m*, instead of following the roll in its revolution.

I have described a pair of rolls, one grooved and the other collared, but the collar *c* may be dispensed with, and the groove *c'* may then be made in either roll, or a half of it in each roll, of a width and depth about equal to the breadth and thickness of the lead bar to be run through, it being only necessary that the working or biting-faces of the opposite rolls, whether such biting-faces be the faces of rolls, collars, or bottom or

sides of a groove or grooves, should have a sufficient bite on the lead bar to pass it through.

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

1. The cutter *i* and guide *e*, in combination with a pair of cylindrical metallic rolls, one of which is mortised for the insertion of removable type, die or dies, and at least one of which is grooved, substantially as above described.

2. The subject-matter of the above claim, in combination with the removable die or type *g*, for the purpose specified.

3. The subject-matter of the first foregoing claim, in combination with the straightening-guide *m*, as set forth.

4. The subject-matter of the last foregoing claim, in combination with the feed-rolls *f f'*, all arranged in the manner substantially as shown and described.

In testimony whereof, I, the said HARRY J. BAILEY, have hereunto set my hand.

HARRY J. BAILEY.

Witnesses:

A. S. NICHOLSON,
JOHN R. LARGE.