

No. 803,523.

PATENTED OCT. 31, 1905.

C. J. BELLAMY.
TYPE BAR FOR TYPE WRITERS.
APPLICATION FILED MAR. 16, 1905.

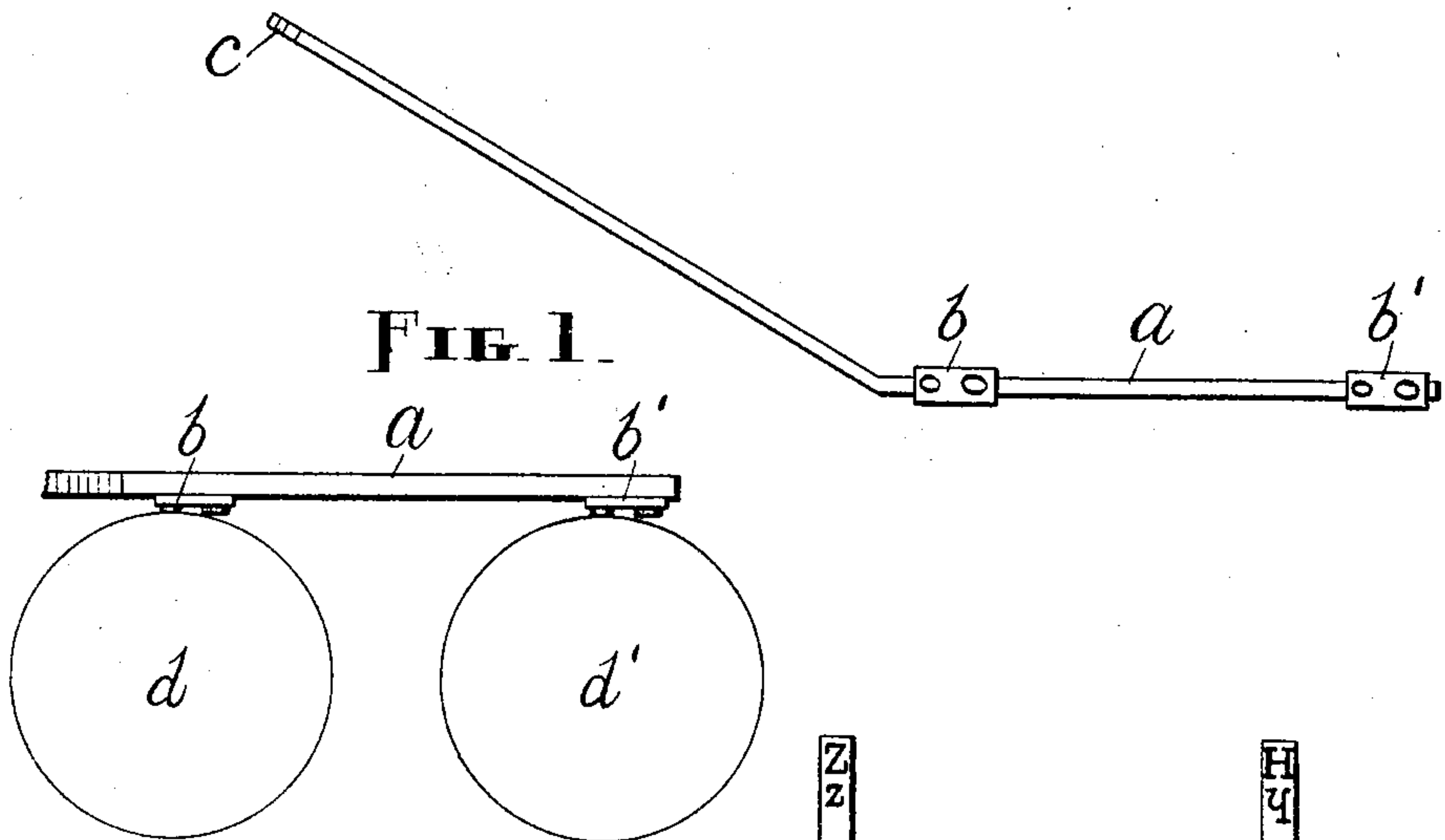


FIG. 1.

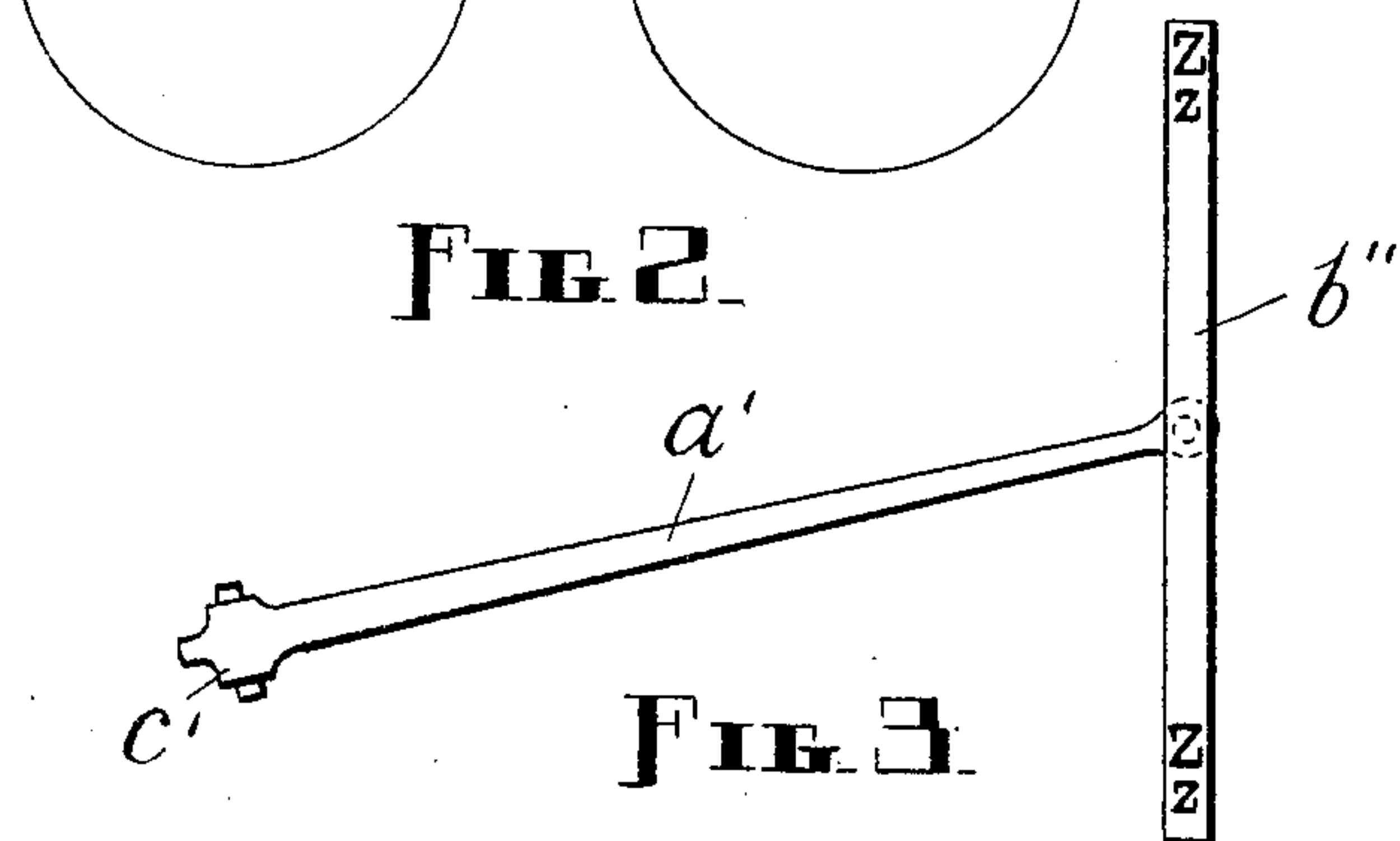


FIG. 2.

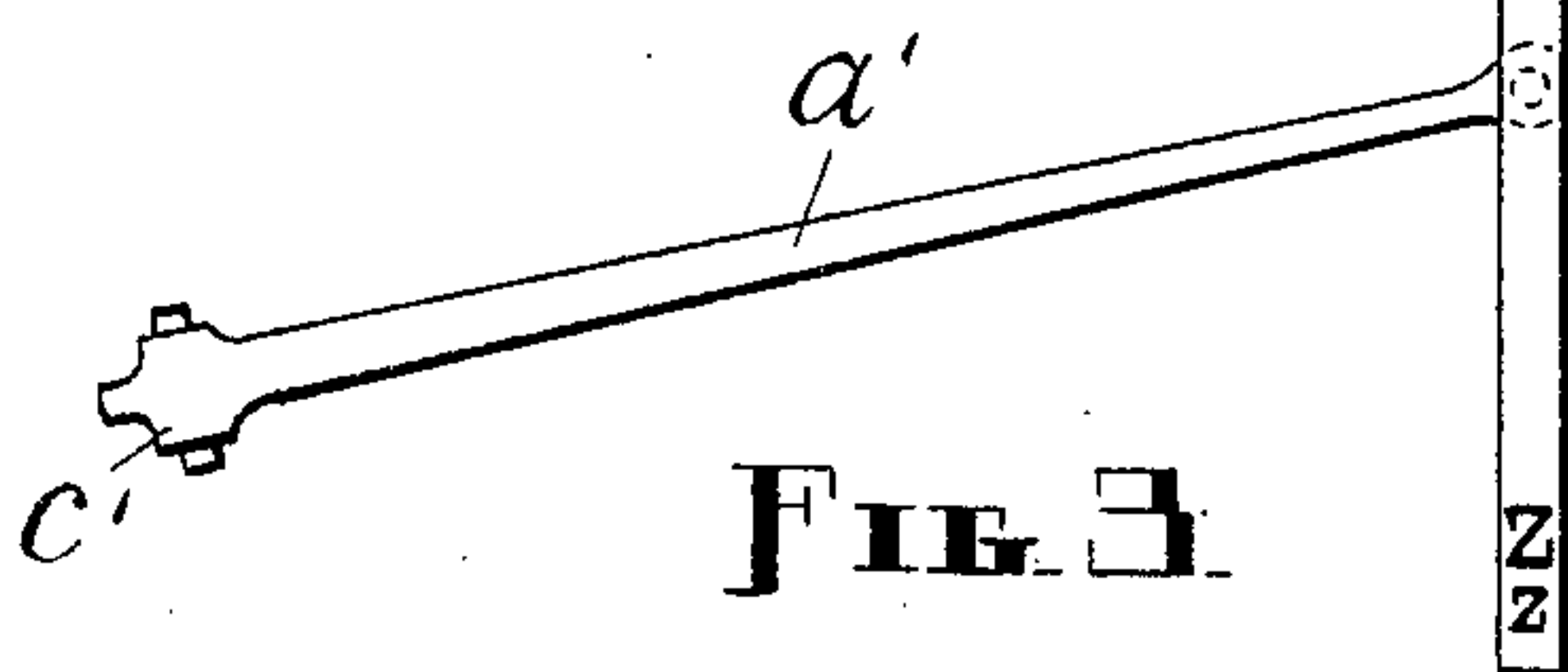


FIG. 3.

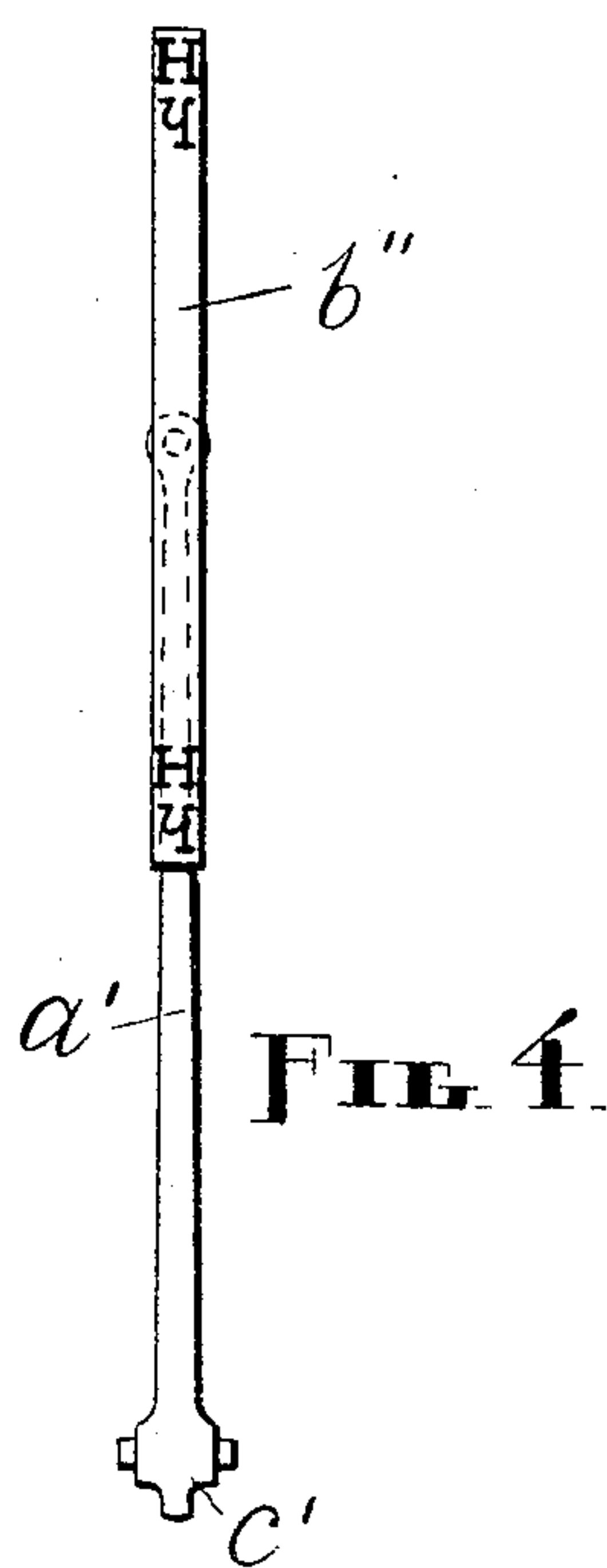


FIG. 4.

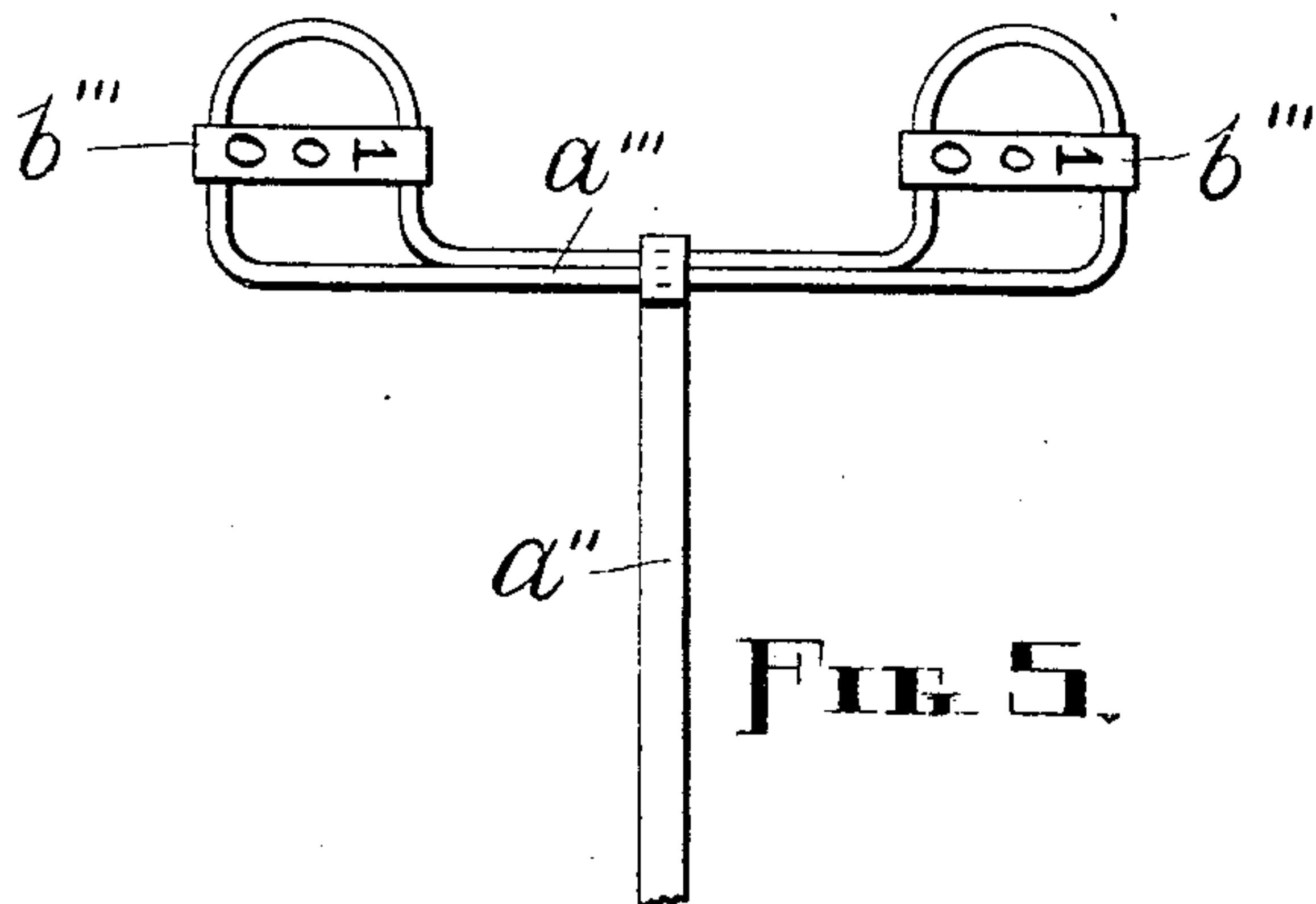


FIG. 5.

Witnesses
J. M. Sterne
A. P. Fairbanks

Inventor
Charles J. Bellamy,
by Webster & Co.,
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES J. BELLAMY, OF SPRINGFIELD, MASSACHUSETTS.

TYPE-BAR FOR TYPE-WRITERS.

No. 803,523.

Specification of Letters Patent.

Patented Oct. 31, 1905.

Original application filed November 21, 1904, Serial No. 233,586. Divided and this application filed March 16, 1905. Serial No. 250,377.

To all whom it may concern:

Be it known that I, CHARLES J. BELLAMY, a citizen of the United States of America, residing at Springfield, in the county of Hampden and Commonwealth of Massachusetts, have invented a new and useful Type-Bar for Type-Writers, of which the following is a specification, the same being a divisional part of my application for Letters Patent filed in the United States Patent Office November 21, 1904, and serially numbered 233,586.

My invention relates to improvements in type-bars for type-writers designed to produce a plurality of original impressions, and comprises a type-bar equipped with more than one character of the same kind; and the object of my invention is to provide a type-bar capable of imparting in a single movement a plurality of original impressions. I attain this object by the means illustrated in the accompanying drawings, in which—

Figure 1 is a face view of a type-bar embodying my invention, such type-bar being applicable to the Franklin style of type-writer; Fig. 2, a side view of a portion of said type-bar, showing two of the characters thereon in contact with two platens; Figs. 3 and 4, face views of two of my type-bars adapted for use in a Remington or similar machine, and Fig. 5 a view of a type-bar adaptable for an Oliver machine.

Similar letters refer to similar parts throughout the several views.

Referring first to Figs. 1 and 2, it will be observed that a type-bar *a* is there shown which may be pivotally mounted in the frame of a machine and operatively connected with the corresponding key and that such bar has two plates *b* and *b'* affixed thereto with upper and lower case letters or characters thereon, the letters or characters upon one plate being duplicates of those upon the other; but the style of letter or character may differ as between the two sets. *c* represents the pivotal end of the bar—that from which the same is operated. The word “character” I wish to be understood as applying to any letter, figure, or symbol that may be used in connection with type-writers. One set of characters on the bar *a* is located at or adjacent the free terminal thereof, while the other set is located at such a distance from the first as to bring corresponding or duplicate characters exactly onto the centers of the two platens, with which the machine

equipped with these type-bars must be provided, when the bar is depressed—that is to say, the two small “o’s” on the bar shown will both strike the platens on vertical lines cutting the axes of the same, and when the platens are shifted the capital “O’s” will strike them at the same places. Two such platens are indicated at *d* and *d'* in Fig. 2.

Instead of having the characters on plates or strips, as shown in the drawings, they may be imposed directly on the type-bars in some cases.

By the word “duplicate” as applied to characters another character of the same kind is meant—that is, a second capital “A,” a second small “a,” a second “—,” &c. Therefore it will be seen that one type-bar may carry two “A’s” and two “a’s,” another two “4’s” and two “&s,” and so on, although the same kind of faces need not necessarily be employed, provided the outlines or characters themselves are the same. For instance, one character might be Roman and its duplicate italic.

In Fig. 2 the bar *a*, equipped with the characters “o” and “O” in duplicate, is shown in its depressed position with the “o’s” in printing positions on the platens *d* and *d'*, and as a result of this two impressions of the same kind are simultaneously made in practice on the platens or on paper carried thereby, the action of the character “o” on the plate *b'* being the same, so far as the act of printing is concerned, as is that of the character “o” on the plate *b*.

A ribbon or other inking medium is to be used with the improved type-bar where the same is employed in a machine for ordinary purposes.

The same general construction of type-bars is present regardless of the make of machine with which they are incorporated, although of course there will necessarily be some structural modification required to adapt the type-bars to different machines. The angle of the bend in type-bars similar to that shown in the first two views varies according to position relative to the longitudinal center of the machine, those nearest such center having the least deflection from a straight line, while those at the extreme ends of the machine have the greatest deflection and those coming between are bent more than the central ones and less than the outer ones, according to the po-

sition occupied. These bends are not materially different from those already in type-bars now to be found in the Franklin machine.

As before intimated, the arrangement of
 5 characters on the type-bars will differ in different styles of type-bar machines. Two bars a' , adaptable for the Remington machine and other machines in the same class, are shown
 10 in Figs. 3 and 4, the character-plate b'' in the first standing at an angle with the bar itself, and such plate in the second being parallel with the bar. c' is the pivotal end of the bar a' . These type-bars differ only from those
 15 now in use in the length of character-plates and the duplication of the characters. In this machine the basket will have to be enlarged more or less. To adapt my improvements to the "Remington," the type-bars must be so
 20 shaped and disposed as to present a character for impression on each platen and at the same time so arranged that an individual type-bar can perform its work without interlocking or coming into contact with any other type-bar. Segmentally and oppositely disposed crescent
 25 groups of type-bars are perhaps the simplest to arrange, as the "Oliver," it being only necessary to introduce a parallel platen on the same horizontal plane and to make the bow-shaped type-bar in twin form, as shown
 30 in Fig. 5, in which a'' represents a bar having a double bow-shaped head a''' , to which the two character-plates b''' are attached, the characters on each of which latter being duplicates of those on the other. The type-bars
 35 in the Williams style of machines can be very easily adapted to the new work by merely extending each of them on the same plane and

at the same angle to the horizontal axis as before. The Underwood and Franklin type-bars are very much alike. 40

I do not wish to be limited to a mere duplication or the addition of a single type character whereby two original impressions only are obtained, since it is obvious that when
 45 deemed advisable by providing the requisite number of characters on the type-bars and installing them in a suitable machine three or even more original impressions may be made simultaneously. Hence the term "duplicate" or its equivalent is to be understood as mean- 50
 ing any number more than one.

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

1. As a new article of manufacture, a type-bar provided with a duplicate of each character thereon, so arranged as to make a simultaneous impression in duplicate thereof. 55

2. As a new article of manufacture, a type-bar having duplicate characters imposed on the working face, side or edge thereof, and 60
 adapted to make simultaneous duplicate impressions.

3. As a new article of manufacture, a type-bar provided with a plurality of types on its working face, side or edge, said types being 65
 arranged to simultaneously make duplicate impressions.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES J. BELLAMY.

Witnesses:

J. M. STERNS,
 F. A. CUTTER.