

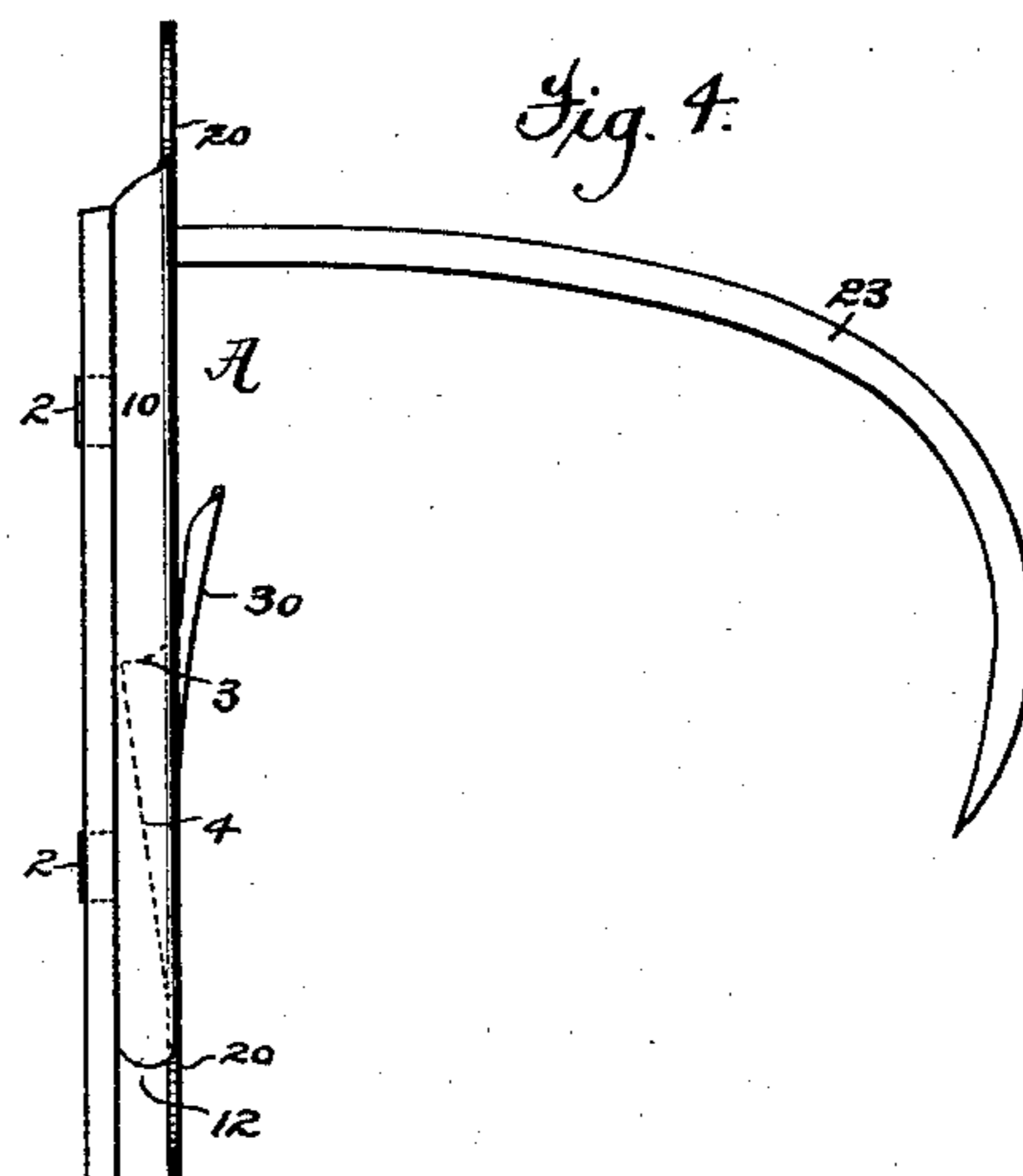
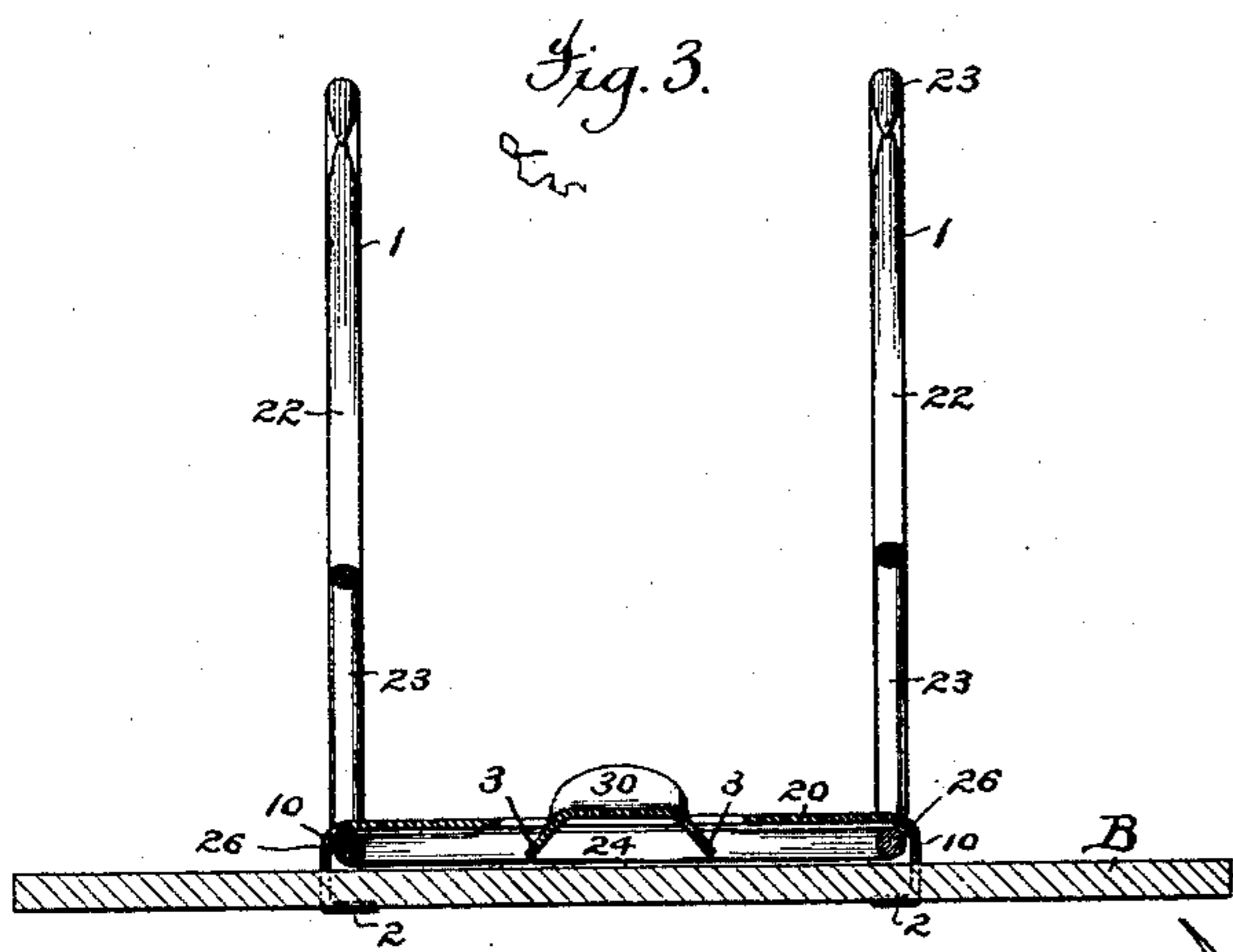
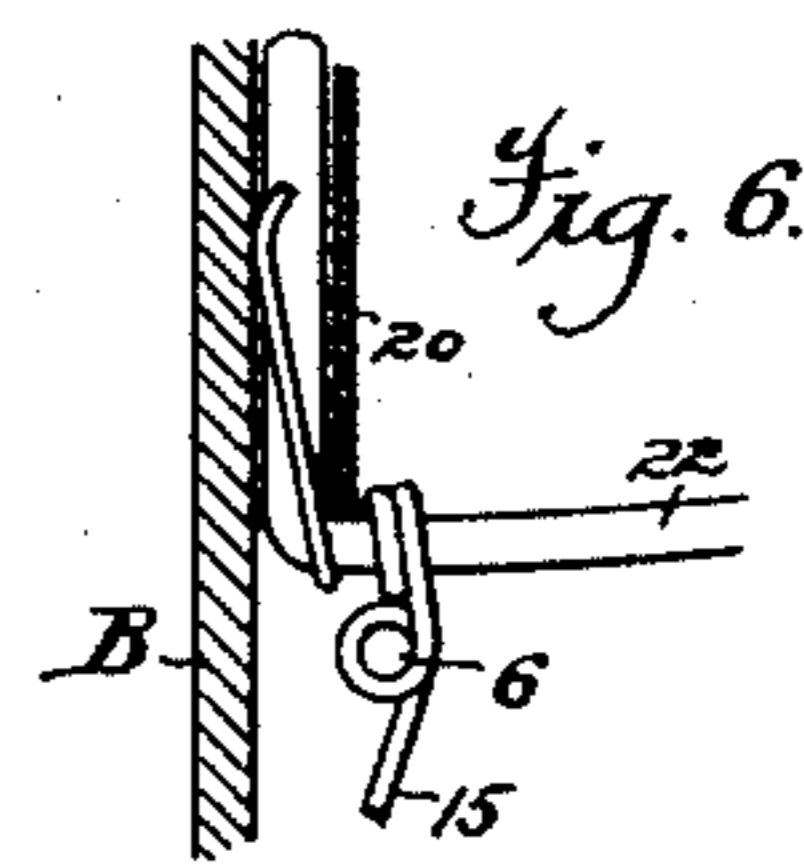
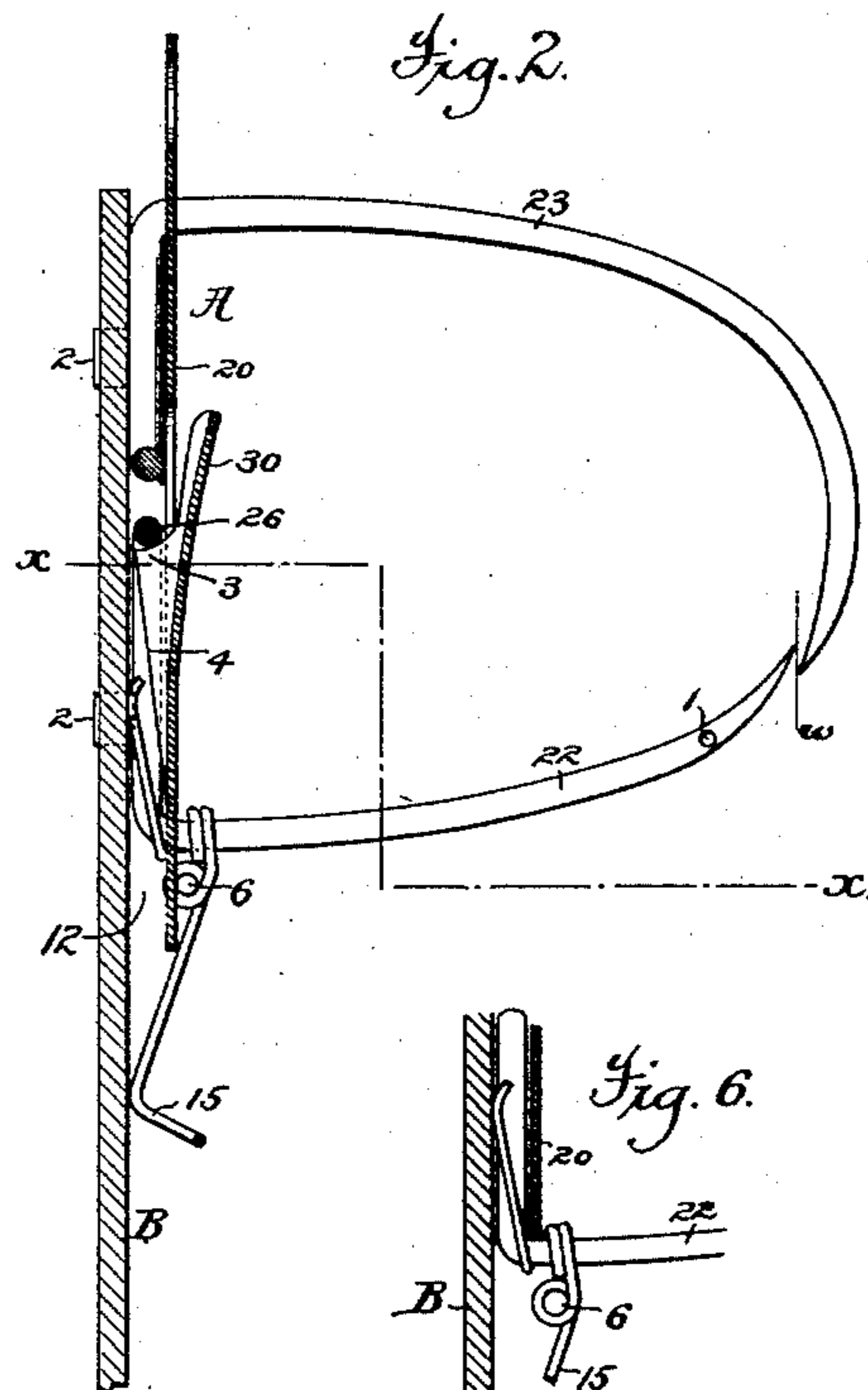
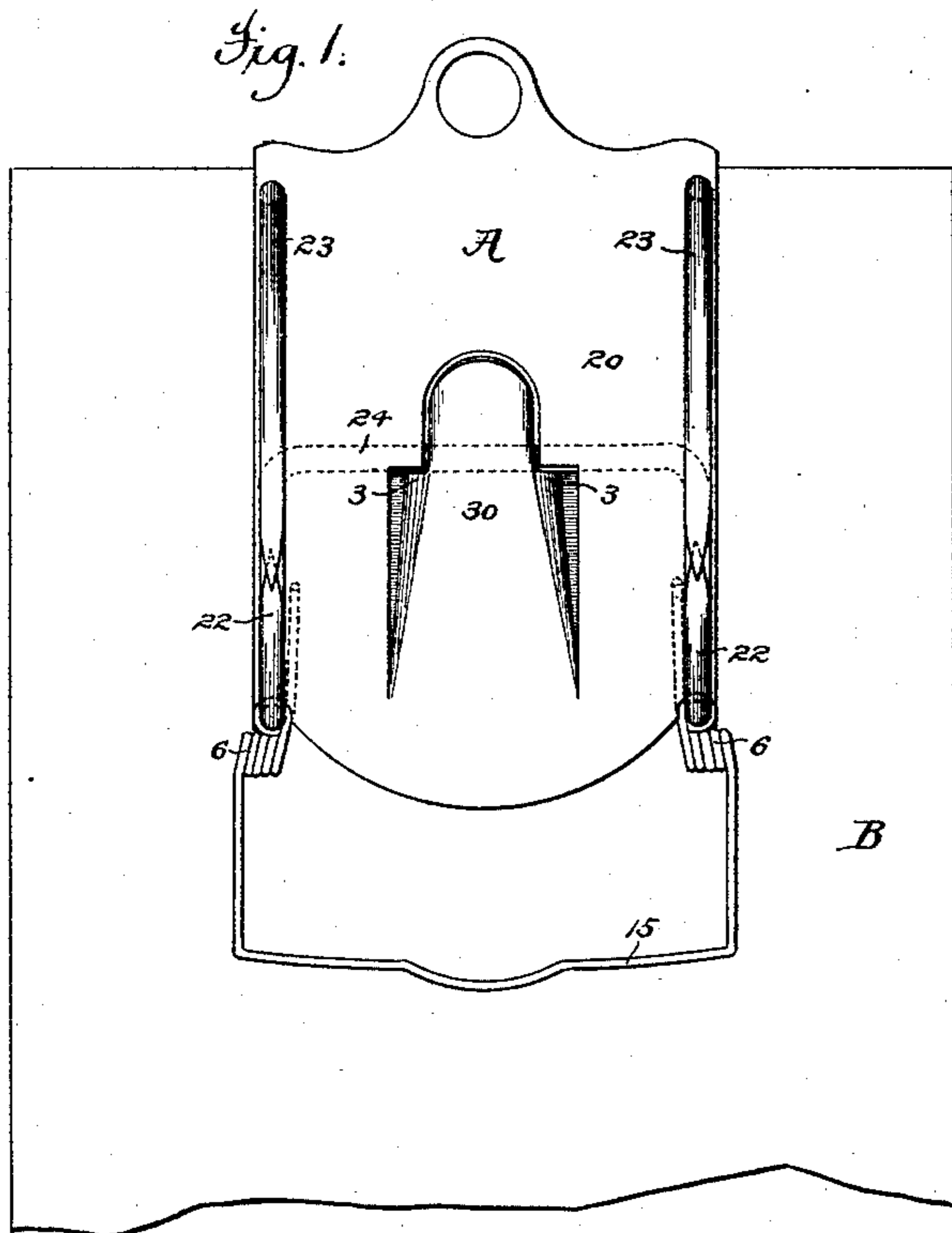
(No Model.)

L. L. FERRIS.

LETTER FILE.

No. 327,389.

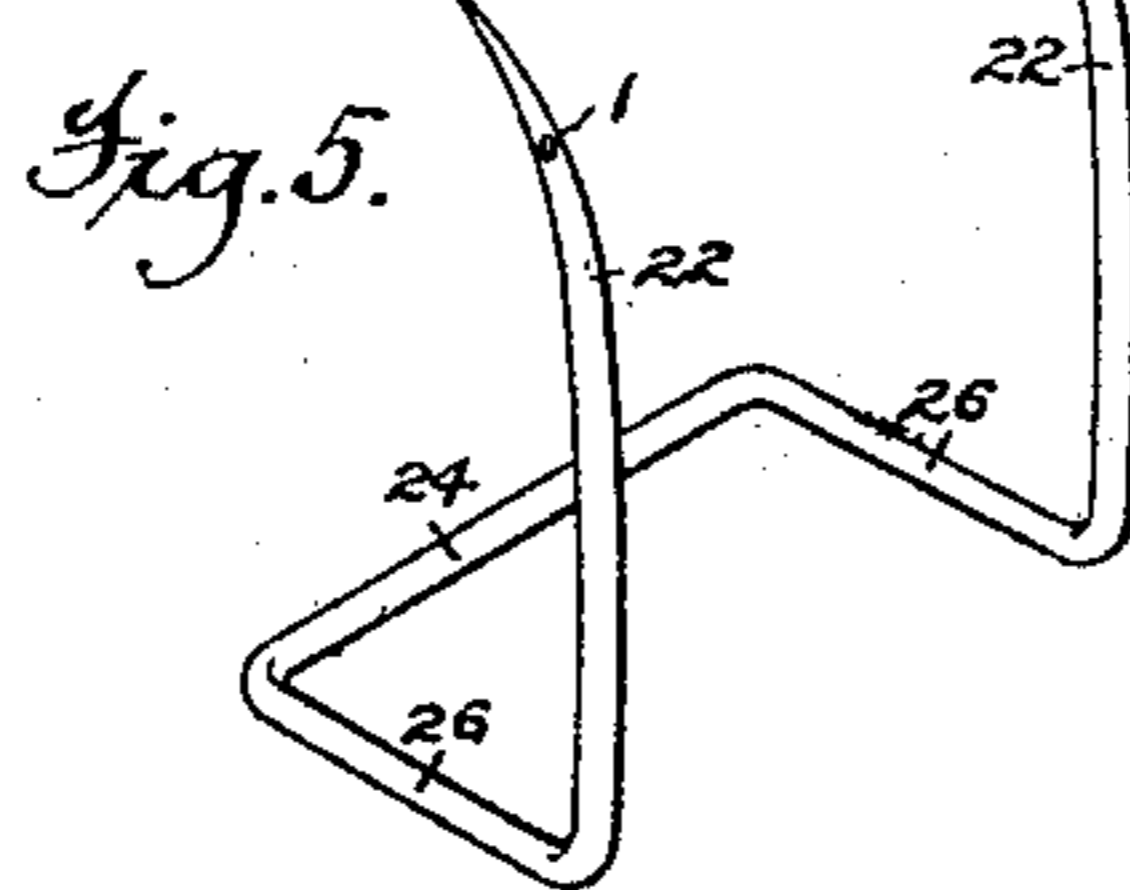
Patented Sept. 29, 1885.



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# UNITED STATES PATENT OFFICE.

LANING L. FERRIS, OF NEW YORK, N. Y.

## LETTER-FILE.

SPECIFICATION forming part of Letters Patent No. 327,389, dated September 29, 1885.

Application filed March 5, 1885. (No model.)

### *To all whom it may concern:*

Be it known that I, LANING L. FERRIS, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Letter-Files, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 The present invention relates to that class of paper-clips or letter-files in which the impaling and holding device is supplemented with an auxiliary holding device, which devices are held in such relation to each other as to enable papers to be readily impaled by one of the holding devices and be transferred from one to the other without removing them from the clip or file, and particularly to the letter-file patented to me April 6, 1880, No. 226,294.

20 The improvements consist in a novel structure of such clip or file, and in certain combinations of parts whereby its cost of manufacture is lessened and the binding or removal of the letters or other matter more conveniently effected.

30 In the drawings, Figure 1 is a plan view of a letter-file embodying the present improvements; Fig. 2, a central sectional elevation of the same; Fig. 3, a cross-section taken on the line *xx* of Fig. 2; Fig. 4, a side elevation of said letter-file with the perforating and holding clip removed; Fig. 5, a perspective view of said clip removed from the file, and Fig. 6 is a sectional detail showing particularly the end of the spring-clip.

40 The structure thus illustrated consists of a base-plate, A, of rectangular or other form, that is preferably struck up from a single piece of sheet metal, providing a body portion, 20, having upon two sides projecting flanges 10, and a central spring locking-tongue, 30, the said base-plate being adapted to receive and support, in proper relation with each other, the impaling and holding devices with which the same is provided. The side flanges, 10, project at an angle to the body portion of the base-plate A, and are provided with fastenings 2 integral therewith, that adapt the same to be secured to any suitable back or support, as B, of any suitable material, as wood, cardboard, and the like, that extends widthwise

in opposite directions, and lengthwise from the said plate, and forms a suitable support for the accommodation of letters, bills, and other papers that may be held by the file. These side flanges are of a depth equal to the diameter or thickness of the wires or rods forming the holding devices, and provide a pocket, 12, between the body portion 20 and the support B, that is adapted to receive the ends of said holding devices and hold them secure therein. These holding devices consist of impaling and main supporting arms 22 and auxiliary supporting-arms 23, each of which projects a suitable distance from the base-plate A, and have their opposed ends curved over said base-plate, so that their pointed ends will lie in close proximity and bear such relation with each other that while permitting the ready introduction of letters or papers to be entered between and be impaled by the points of a pair of arms, they will form practically a pair of continuous arms, whereby a letter, bill, or paper impaled and supported by one pair of arms can be transferred to the other pair of arms without removing it from the file or releasing it from impalement with said arms. The adjacent ends of these impaling-arms are furthermore so arranged in relation to each other that while in such close proximity to each other the ends of one set of arms may readily pass by the ends of the other set in the operation of removing the arms from the base-plate, as is represented by the line *w* of Fig. 2. The adjacent ends of these arms are also preferably so arranged, and yet effect this result, that the end of one arm will apparently lap beyond the end of the other arm to better permit the transfer of papers from one set of arms to the other. In order that the entire removal of an accumulated quantity of such letters or other papers, or a portion thereof, may be readily effected, it is necessary that one or the other of said pair of arms shall be capable of ready removal from their supporting base-plate, and in like manner be replaced, ready to be again used for the accumulation of a further quantity of letters, &c. To accomplish this the main supporting-arms 22 in the present instance are removably secured to said base-plate. These arms are formed of a single piece of wire or metal rod, (as, indeed, the other pair

of arms, 23, are preferably formed,) which is bent and curved to form a base or foot piece composed of the portions 24 26, (see Fig. 5,) that project at an angle to the impaling-arms thereof, which base is of a size adapted to readily slide within the pocket 12 of the base-plate, and between the side flanges thereof, and there be engaged by the spring locking-tongue 30, and when thus locked in place be in proper coacting relation with the stationary arms 23.

The locking-tongue 30, formed in the body portion 20, as before described, is provided with side ears, 3, that project into the pocket 12, which ears emerge into said tongue at its base, where it becomes integral with the base-plate, and thereby provides inclines 4, (see Figs. 2 and 4,) whereby the foot of the removable impaling-arms 22 will, as it is pressed within the pocket, gradually raise the locking-tongue against its spring action until its portion 24 arrives beyond the ears 3, when said tongue, thus released, will regain its former position, and thereby confine said foot within the pocket, as is best shown in Fig. 2.

The auxiliary supporting-arms 23 are formed with a base or foot similar to that of the arms 22, and are fixedly secured to the base-plate A by said foot being confined to the under side of said base-plate, and there secured by solder. (See Fig. 2.) It is, however, apparent that these arms may be made in two pieces, and each piece in like manner fixedly secured to the base-plate.

From the foregoing it will be seen that in order to remove the impaling-arms 22, and also the accumulated quantity of papers they may hold, it will only be necessary to lift the spring-tongue 30 by its outwardly-projecting end, so that its ears 3 will be raised sufficiently to permit the passage of the portion 24 of the base of the arms 22 beyond its abrupt end, when the same may be readily removed from the pocket 12; and upon the removal of the papers from the impaling-arms their foot can be inserted within the pocket until its portion 24 is pushed beyond the abrupt end of the ears 3 and be again secured in proper position for the impaling and filing of other letters, bills, and papers.

If it is desired to bind the papers together impaled by the arms of this file with a cord, tape, or wire, the removable arms 22 will each be preferably provided with eyes 7 near their impaling ends, and in the operation of binding the cord, tape, or wire will be inserted in said eyes, the arms 22 and the papers they hold will be removed from the file in the manner before explained and the mass of papers removed from the impaling-arms, which in so doing will result in said arms carrying the free ends of the cord, tape, or wire through the perforations in the papers, upon what was the under side thereof, where said ends of the cord, tape, or wire, being removed from

the eyes of the arms, will be tied together, and thus confine and bind the said papers together in a manner well known to those familiar with this class of letter-files.

It often becomes desirable to provide this class of letter-files with means for temporarily holding papers that are not required to be filed with others held by the impaling-arms, and to hold such papers as would be disfigured by perforations. To effect this the removable impaling-arms 22 are provided with a spring-clip, 15, whose projecting portion is constantly pressed in contact with the supporting-back B by spring-coils 6 6, with which it is provided, and is held to the arms 22 by a few coils around each of the said arms, and has its free ends projecting alongside of each of the portions 26 of the arms into the pocket 12 of the base-plate, as is clearly seen in Fig. 6.

It is apparent that the supporting-back B may be omitted and the pocket 12 be formed, within which the removable impaling-arms are held by a plate secured to the back of the base-plate A, between the side flanges, 10, and still be capable of supporting the removable arms; and it is also obvious that instead of the impaling-arms being in duplex form they may be single arms, thus making only one perforation in the papers impaled thereby, and in this instance the form of the foot of the removable impaling-arm will be suitably formed to provide a base or foot capable of being confined within a pocket formed by the base-plate of the letter-file and held therein by a spring locking-tongue, as is herein shown and described. This locking-tongue may also be a plate provided with a confining ear or ears and hinged to the base-plate, and have its ear or ears constantly pressed through a hole or holes in said plate by a flat spring bearing against the tongue, as is obvious.

What I claim is—

1. The combination, with the base-plate A, supporting the stationary arm or arms 23, of the removable impaling arm or arms 22, adapted to be engaged and held in position by a locking-tongue, and a locking-tongue, as 30, substantially as described.

2. The combination, with the base-plate A, supporting the stationary arm or arms 23, of the removable impaling arm or arms 22, and a spring locking-tongue, as 30, formed integral with said base-plate, substantially as described.

3. The combination, with a base-plate supporting impaling-arms and provided with a locking-tongue, as 30, of a removable impaling arm or arms provided with a base or foot that is adapted to be engaged by said locking-tongue, and held thereby in position on the base-plate, substantially as described.

4. The combination, with the base-plate A, supporting the stationary arm or arms 23, and formed with the side flanges, 10, that provide a pocket, 12, of the removable impaling arm or arms 22, adapted to be held in said pocket by a locking-tongue, and a locking-tongue, as 30,

whereby said arm or arms is or are held in position over the base-plate, substantially as described.

5 5. A paper-file consisting of a base-plate providing two pairs of curved arms, 22 23, the ends of which are arranged to lap past each other, so that papers can be inserted between said ends, impaled by one pair of arms without adjusting the relation of the arms  
10 with each other, and transferred from one pair of arms to the other pair, one of said pair of arms being wholly removable from said base-

plate by sliding them from within a recess or pocket formed by the base-plate without disturbing the relation of the latter with its support, substantially as described. 15

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

LANING L. FERRIS.

Witnesses:

T. H. PALMER,  
GEO. H. GRAHAM.