

No. 760,303.

PATENTED MAY 17, 1904.

C. C. BOYKIN.
PAPER PUNCH OR PERFORATOR.

APPLICATION FILED FEB. 1, 1904.

NO MODEL.

Fig. 1.

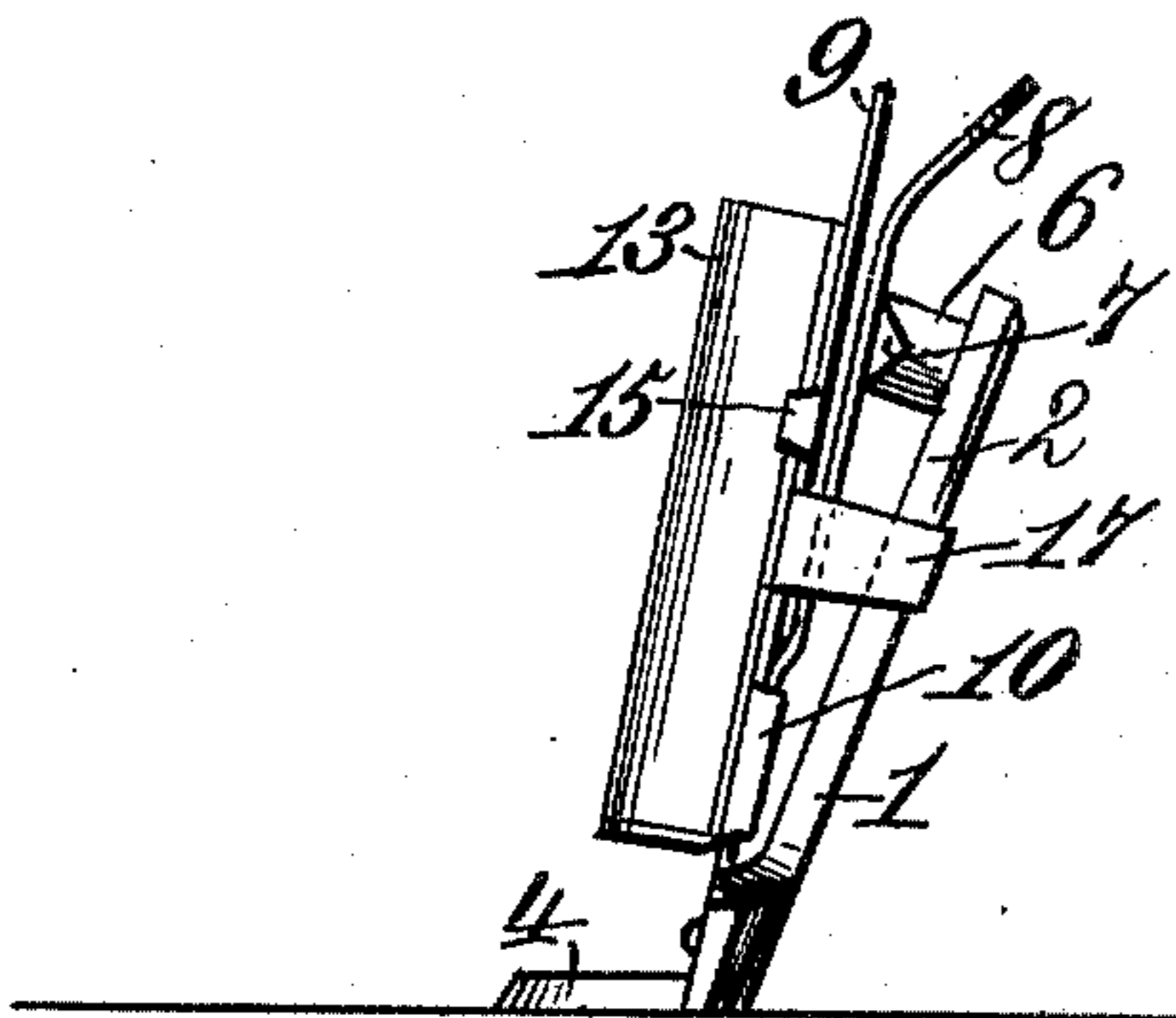


Fig. 2.

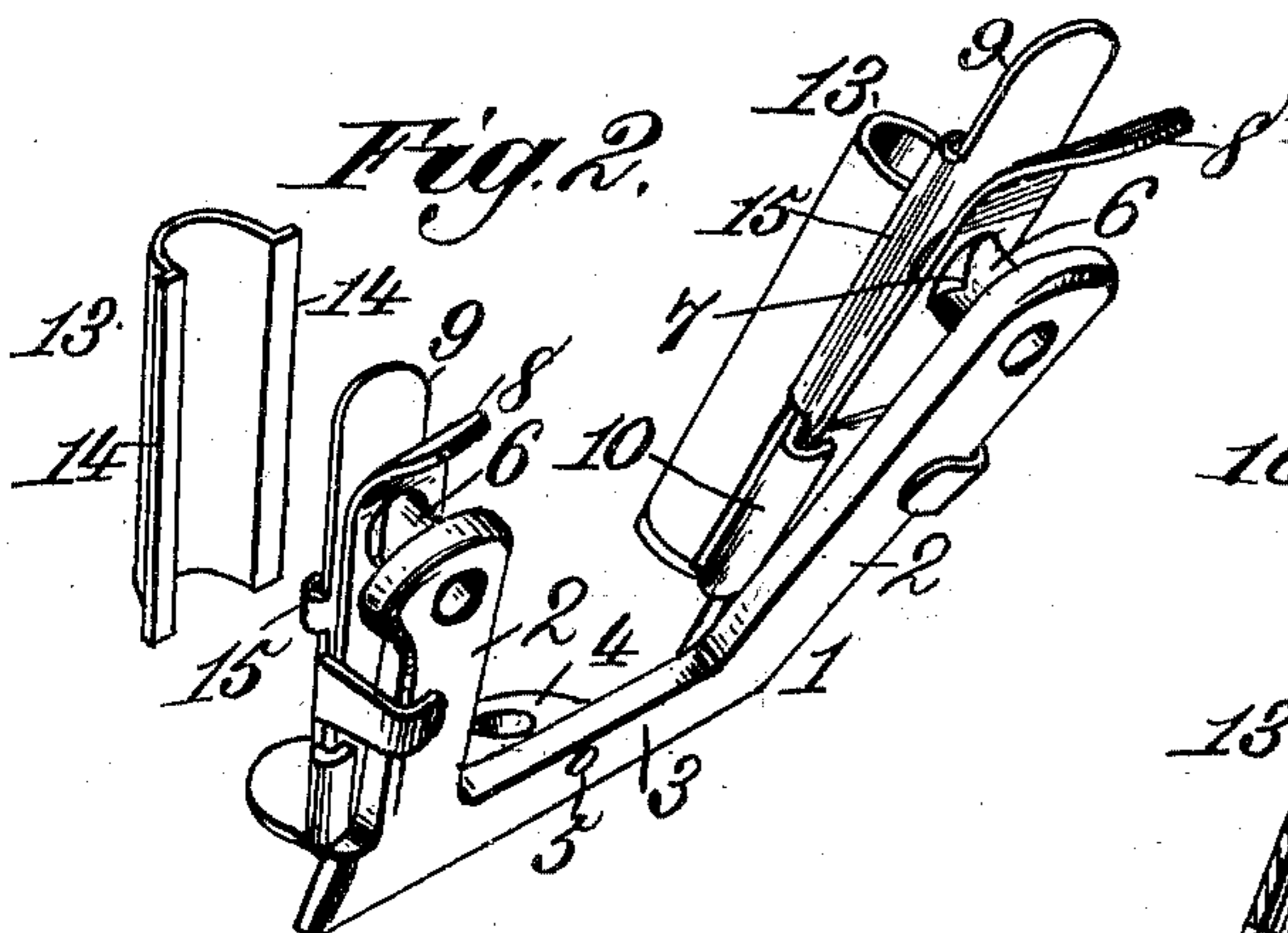


Fig. 3.

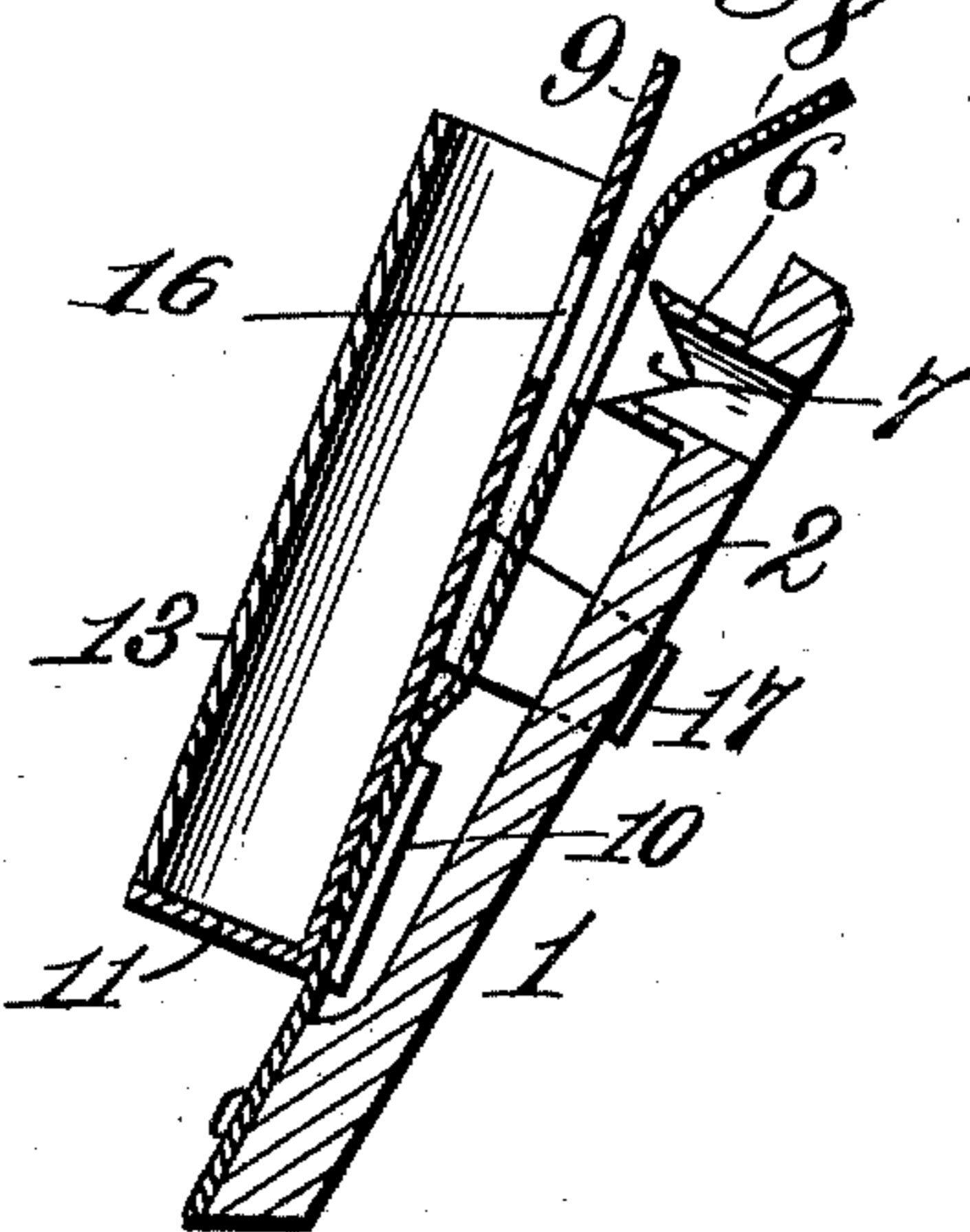


Fig. 4.



Fig. 5.

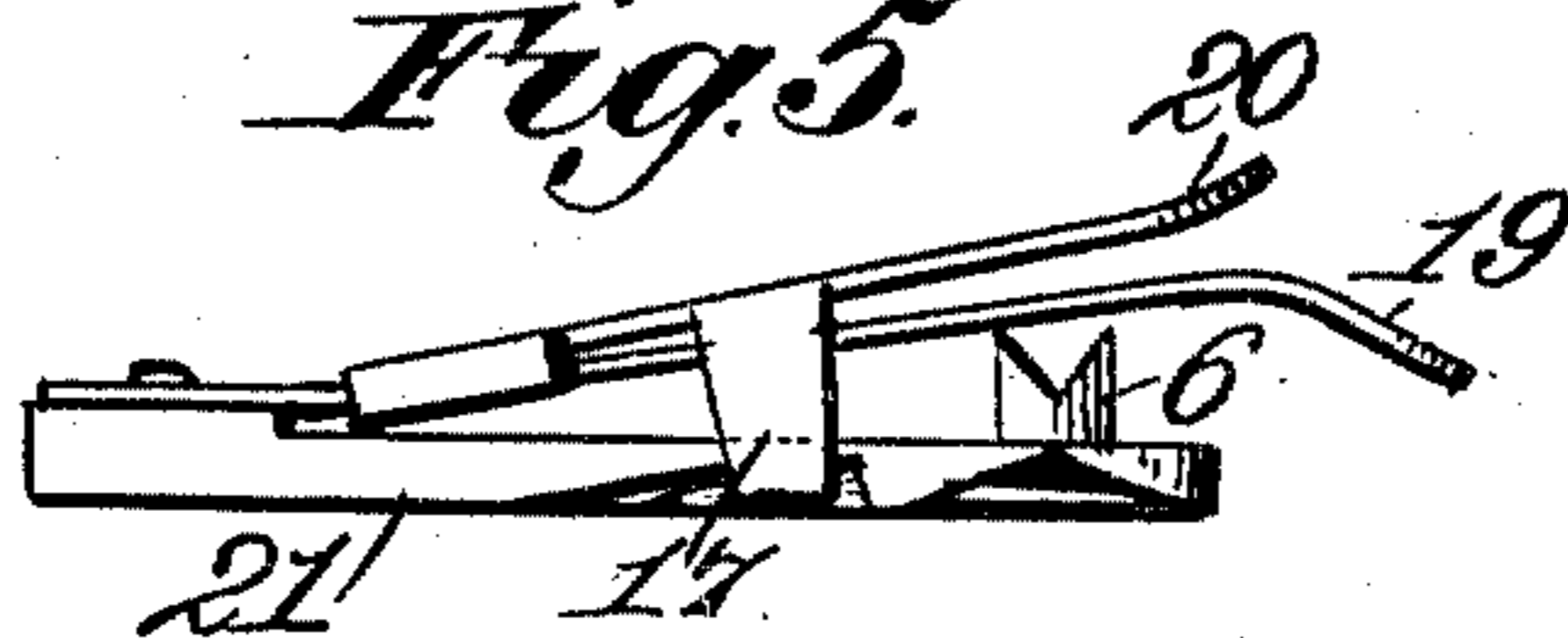
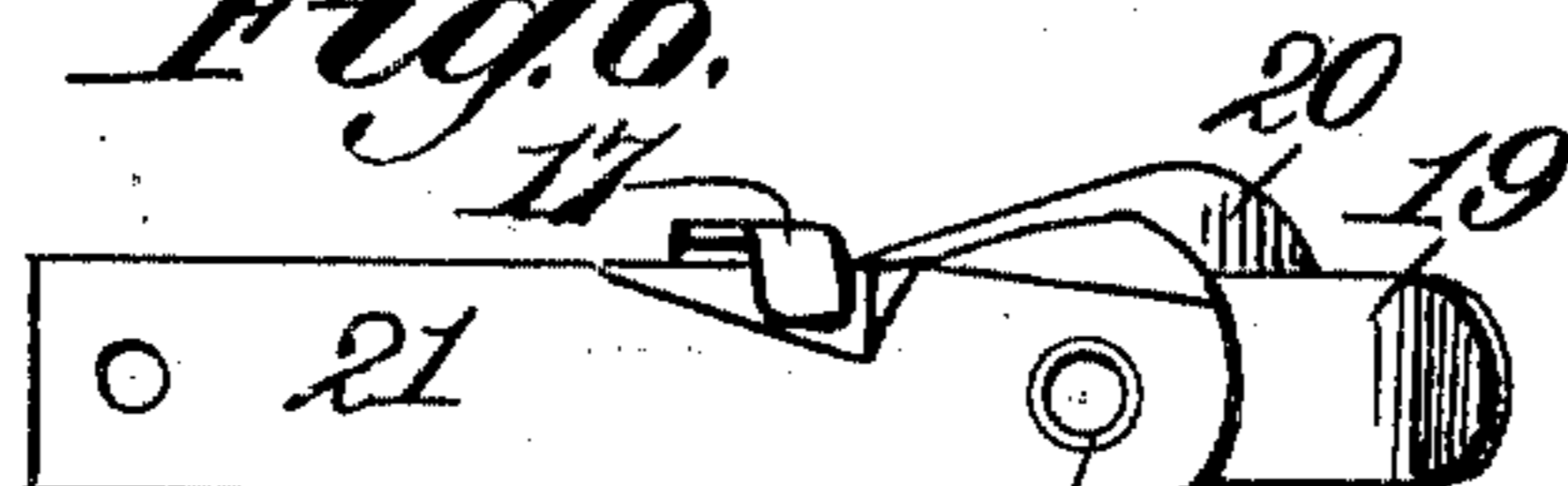


Fig. 6.



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UNITED STATES PATENT OFFICE.

CHRISTOPHER C. BOYKIN, OF NORFOLK, VIRGINIA, ASSIGNOR OF ONE-HALF TO GEORGE W. FACE, JR., OF HAMPTON, VIRGINIA.

PAPER PUNCH OR PERFORATOR.

SPECIFICATION forming part of Letters Patent No. 760,303, dated May 17, 1904.

Application filed February 1, 1904. Serial No. 191,594. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER C. BOYKIN, a citizen of the United States, residing at Norfolk, in the county of Norfolk and State of Virginia, have invented new and useful Improvements in Paper Punches or Perforators, of which the following is a specification.

This invention relates to a paper punch or perforator.

The object of the invention is in a simple, ready, thoroughly feasible, and practicable manner to effect stabbing and punching of bills, receipts, or other papers for the purpose of filing them away upon a bill-file of any usual or preferred construction.

The devices herein shown are adapted to be secured upon a suitable backing which may have associated with it ordinary filing-wires, such as are in common use, and as this will be readily understood detailed illustration of this application is deemed unnecessary.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of a paper punch or perforator, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which like characters of reference indicate corresponding parts, there are illustrated two forms of embodiment of the invention capable of carrying the same into practical operation, it being understood that the elements therein exhibited may be varied or changed as to shape, proportion, and exact manner of assemblage without departing from the spirit thereof.

In the drawings, Figure 1 is a view in side elevation of one form of the invention. Fig. 2 is a view in perspective with a part removed. Fig. 3 is a view in vertical longitudinal section through one of the perforating elements. Fig. 4 is a view in detail of one of the stripper-plates. Fig. 5 is a view in side elevation of a slightly-modified form of the invention. Fig. 6 is a view taken from the under side of the form of device shown in Fig. 5.

Referring to the drawings and to Figs. 1 to 4, inclusive, thereof, 1 designates the base of

the punch or perforator, the same comprising two arms or members 2 and a connecting member 3, the arms 2 being disposed at diverging angles with relation to each other and to the member 3. As before stated, it is designed that this device shall be combined with a holder having filing-wires thereon, and to effect this result the member 3 of the base is provided with an angularly-disposed boss 4, provided with an orifice, the member 3 being provided with a similar orifice 5, and through the orifices thus provided suitable fastening means may be inserted to effect securement of the device to its support. As both members of the perforator are constructed in the same manner and operate alike, a description of one will serve for both. The member 2 is provided at its free end with a cutter or punch 6, which is in the form of a tubular projection having a V-shaped crotch 7 at its upper end, the inner walls of the crotch being countersunk, thus presenting cutting edges. Secured to the member 3 in any suitable manner, as by rivets or the like, is a resilient stripper-plate 8, the forward end of which in this instance is shown as curved downward, thus presenting a guide to effect proper insertion of the sheet of paper and to cause it to be properly positioned with relation to the cutter or punch, the said stripper-plate being provided with an orifice to receive the cutter or punch. As will be seen by reference to Fig. 1, the stripper-plate occupies normally a position slightly above the upper end of the punch or cutter, and by this arrangement at each manipulation of the device the severed disk of paper will be positively forced away from the cutter, thus preventing any clogging thereof.

Coacting with the cutter, which constitutes the male member of the punch, is a female cutter member 9, which is in the form of a plate having at its rear end underturned flanges 10, which embrace the stripper-plate and hold it firmly assembled therewith, the rear end of the female member 9 being provided with an upturned head-piece, the function of which will presently appear. One side of the female member is provided with a

downturned arm which is bent under the member 2 and subserves the double function of limiting the upward movement of the stripper-plate and the female member and also the insertion of the paper to be punched and forms, therefore, a "combined gage and stop," by which term it will be hereinafter designated. In the operation of the device the disks or circular pieces of paper severed from the bill or receipt or the like to be filed would ordinarily fall to the floor or upon the desk of the user, and thus be objectionable, and to obviate this there is a waste-holder 13 combined with the female member, the same comprising a semicylindrical metallic body having its edges outturned to present flanges 14, which are adapted to engage intumed guides 15, formed on the upper edges of the female cutter member. As shown in Fig. 2, one of the flanges 15 extends practically throughout the greater portion of the length of the female cutter member, while the other guide is more in the nature of a lug; but it is to be understood that the invention is not to be limited to this particular arrangement, as elongated guides may be employed on each side of the female member, or, if preferred, a plurality of short lugs or guides may be adopted, if found necessary or desirable. The female cutter member is provided with an orifice 16, through which the cutter or punch is adapted to project; but owing to the peculiar configuration of the cutter or punch it is not essential that there should be any direct contact between it and the walls of the orifices of the stripper-plate and the female cutter member to effect severing of the disk from the paper, as owing to the double-pointed cutting edges presented by the V-shaped crotch and the beveling or countersinking of the inner walls of the said crotch a clean-cut severing is effected, which could not result with an ordinary tubular cutter except there be a direct contact between the cutter and the walls of the orifices in the stripper-plate or of the female cutter member. In order to prevent the escape of the cut paper, the head 11 is provided, against which the rear end of the waste-holder will impinge, and when it is desired to clear the waste-holder of the accumulated severed disks it will be only necessary to impart a slight compressing of the outer walls of the waste-holder to remove the flanges thereof from engagement with the guides, whereupon the cutter-holder may be relieved of its contents and replaced to its original position.

The form of my invention just described is adapted for punching two holes through a sheet of paper at the same time, and to effect this the paper is held in the hand and inserted between the female cutter member and the stripper-plate with the written side down, and as soon as the forward edge of the sheet impinges the combined gages and stops pressure is applied by the thumb and forefinger

of each hand to the waste-holder and to the under side of the members 2, thereby forcing the cutters or punches through the paper and discharging into the holders the severed disks. As soon as the pressure is released from the parts the female member and stripper-plates resume their former positions, and thus leave the sheet of paper free to be removed and to be filed upon the filing device, whatever character it may be.

In the modified form of the invention shown in Figs. 5 and 6 there is provided a punch or perforator adapted for forming a single opening, and this will be found highly useful where papers are to be secured together with string, tape, or ordinary paper-fastener. In all essential respects the punch forming this modification is the same as one of those shown in the form of invention first described, the main difference being that the waste-holder is omitted, although, if preferred, it may be included. There is also a slight difference in the construction of the combined gage and stop, for whereas in the form of invention shown in Figs. 1 to 4, inclusive, there is one stop employed in connection with each punching element in the form of the invention shown in Figs. 5 and 6 there are two gages 17 and 18, whereof the gage 17 constitutes a stop for limiting the upward movement of the stripper-plate 19 and female cutter member 20 with relation to a base 21.

The devices described are exceedingly simple of construction, and by reason of the manner in which the parts are made and assembled danger of the disarrangement in use will be reduced to a minimum. Moreover, in case of an injury repair of a part may be cheaply effected, as it is designed that all the parts shall be made of standard sizes, and thus in case one or more parts become useless repair may be readily and cheaply effected.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a paper-punch, the combination of a base having a cutter, a stripper-plate secured to the base, a female cutter member secured to the stripper-plate and provided with a projecting arm for engaging the under side of the base to limit the movement of the stripper-plate and female member, and a waste-holder detachably connected to the female member.

2. In a device of the class described, a base carrying a tubular cutter or punch having a crotch provided with interiorly-beveled walls, a resilient stripper-plate secured to the base and having an orifice to receive the cutter or punch, a female cutter member secured to the stripper-plate and provided with a head, and a waste-holder detachably connected with the female cutter member and adapted to have one end closed by the head.

3. A device of the class described compris-

ing a base provided with a cutter, a stripper-plate secured to the base and provided with an orifice to receive the cutter, a female cutter member having underturned flanges engaging the stripper-plate and provided with guides, and with a combined gage and stop to limit the insertion of the paper within the device and also the movement of the stripper-plate and female cutter member with relation

to the base, and a waste-holder engaging the guides on the female cutter member.

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

CHRISTOPHER C. BOYKIN.

Witnesses:

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THOS. T. JEFFRIES.