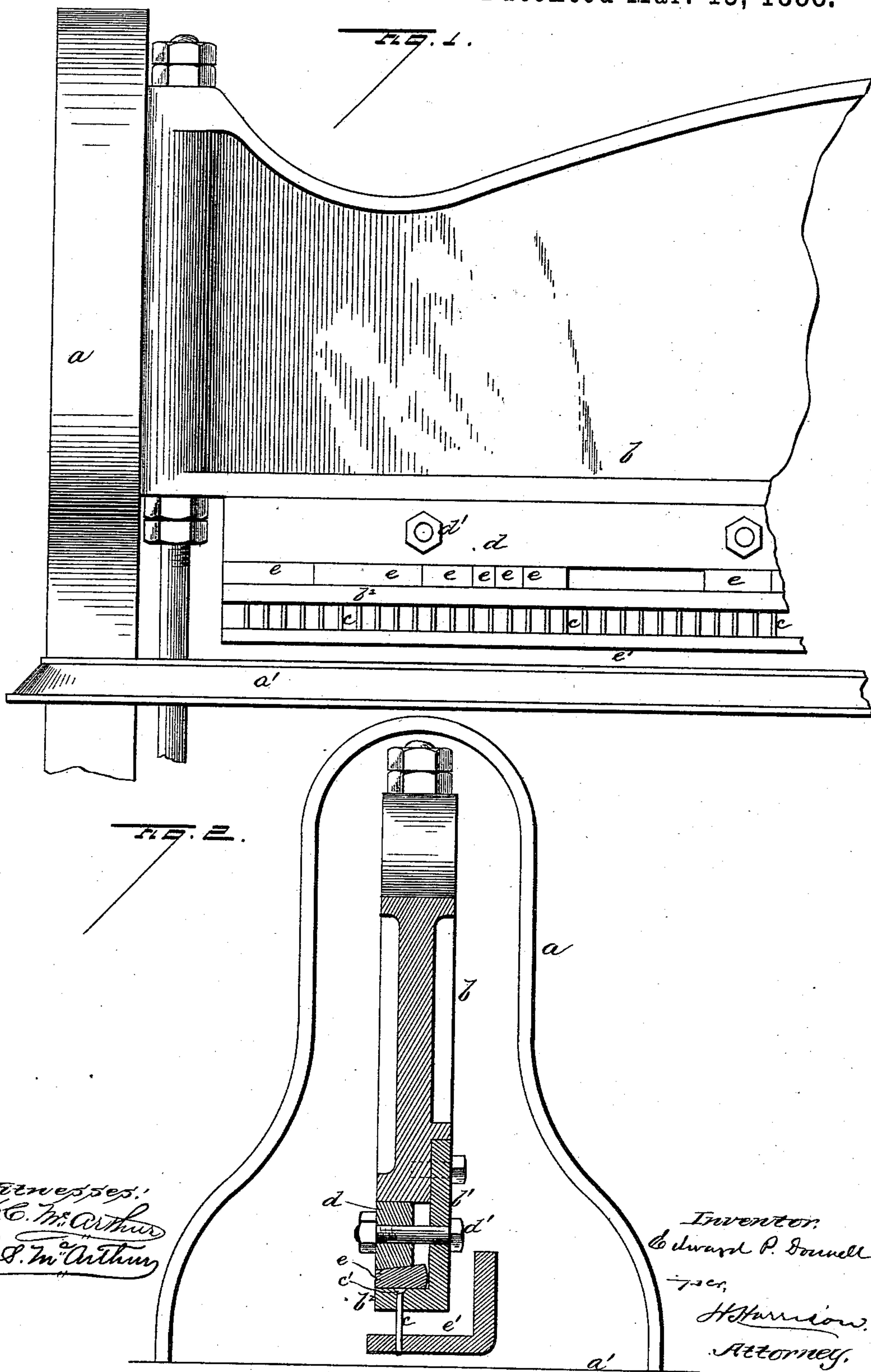


(No Model.)

E. P. DONNELL.
PERFORATING MACHINE.

No. 379,379.

Patented Mar. 13, 1888.



Witnesses:
H. C. McArthur
J. S. McArthur

Inventor:
Edward P. Donnell
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UNITED STATES PATENT OFFICE.

EDWARD P. DONNELL, OF CHICAGO, ILLINOIS.

PERFORATING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 379,379, dated March 13, 1888.

Application filed January 7, 1887. Serial No. 223,677. (No model.)

To all whom it may concern:

Be it known that I, EDWARD P. DONNELL, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Perforating Machines, of which the following is a specification, to wit:

This invention relates to an improvement in perforating machines; and it consists in certain peculiarities of the construction and arrangement of the same, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art to which my invention pertains to make and use the same, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a front elevation of the upper part of one end of my machine, and Fig. 2 is a vertical transverse section of the same.

a represents one of the side frames of my machine, and *a'* the table upon which the work is supported while under operation. As both ends of my machine are alike, I have thought it necessary to show only one end, and have not illustrated the lower part of the machine at all, as it forms no part of my present invention, and is fully shown and described in another patent granted to me December 11, 1883.

In the upper part of the main frame above the table is a vertically sliding head, *b*, provided upon its rear side with a casting, *b'*, formed with a horizontal flange, *b²*, which projects forward and lies beneath the head, as fully shown in Fig. 2. In this flange is set the series of perforating-pins *c*, the heads *c'* of which are recessed in the upper face of the flange and flush with the surface of the same.

Between the flange and the bottom of the sliding head I place a bar or clamp, *d*, secured to the casting *b'* by bolts *d'*, by means of which it is drawn in at will for a purpose presently seen. Beneath this bar, and between it and the flange *b²*, I place a number of filling-pieces, *e*, of various lengths, which lie upon the heads of the perforating-pins. These latter are allowed to rest loosely in their supporting-flange *b²*, and are held down by the filling-pieces *e*, their lower ends lying normally in a

guide and clearing-bar *e'*, which is supported above the table far enough to allow the work to be pushed under it.

It will be understood that in use the work is placed in position, the head depressed, forcing the pins *c* through the work, and when the head is lifted to its normal position the pins are withdrawn, the material being stripped off of them by the guide and clearing-bar *e'*.

It frequently occurs that a sheet of paper is to be perforated at intervals, or only partially across its face, and in such cases the movable bar or clamp *d* is loosened and the filling-pieces removed from over the heads of so many of the pins as occupy the space or spaces which it is not desired to perforate. The clamp-bar being again set up to hold the other filling-pieces in place and the head depressed, it will be evident that when the filling-pieces have been removed the pins are simply lifted in their sockets and do not perforate the work. The filling-pieces are made with a considerable number of variations in size, and it will be at once evident that they can be easily and quickly arranged to leave a blank space at any desired point and of any suitable size to suit the work in hand.

By reference to Fig. 2 it will be seen that the under side of the clamp-bar *d* is slightly beveled toward its inner side, and will therefore more firmly clamp the filling-pieces as it is drawn in upon them.

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

In a perforating machine, the combination, with the needle bar having the lateral recess, of the beveled retaining plate removably secured in the recess, and a beveled slug held by said retaining-plate upon the lower face of said recess and over the heads of the perforating needles, substantially as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD P. DONNELL.

Witnesses:

W. C. MCARTHUR,

W. S. MCARTHUR.