

1,395,328.

Fig. 1.

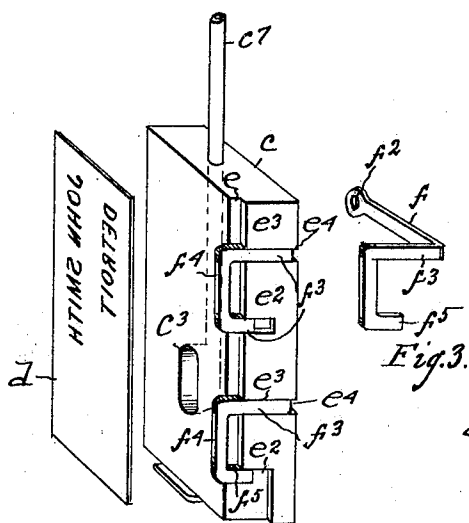


Fig. 2.

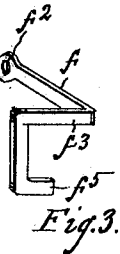


Fig. 3.

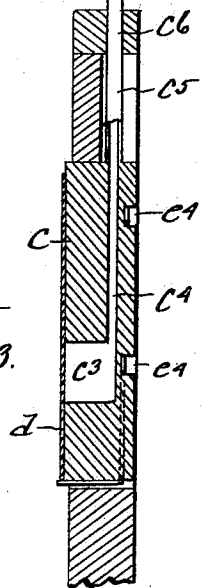


Fig. 5.

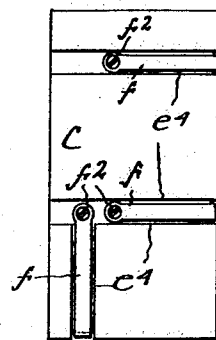


Fig. 4.

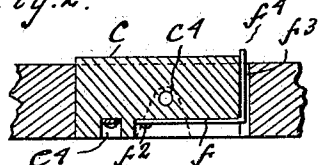


Fig. 6.

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PRINTING APPARATUS.

1,395,328.

Specification of Letters Patent.

Patented Nov. 1, 1921.

Application filed April 4, 1919. Serial No. 287,394.

To all whom it may concern:

Be it known that I, REED ADAMS, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Printing Apparatus, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to printing apparatus and a specific object of my improvements is to provide an improved apparatus for facilitating the placing and retaining of address-plates in the form and removing them therefrom.

I secure this object in the apparatus illustrated in the accompanying drawing in which;

Figure 1 is a perspective view of a set-up form with apparatus embodying my invention.

Fig. 2 is a perspective view of the printing-plate holder.

Fig. 3 is a perspective view of one of the elements of the plate-positioning apparatus.

Fig. 4 is an inverted plan view of the printing plate holding apparatus.

Fig. 5 is a section to an enlarged scale on the line V—V Fig. 1.

Fig. 6 is a section on the line VI—VI Fig. 1.

a is a rigid frame or chase, b is the type for printing the message of a circular letter.

c is a block or base of about the thickness of the body of the type or of the spaces or quads. This plate is rectangular in plan and is placed where the name and address of the person to whom the letter is to be sent is usually placed. c^2 (Fig. 1) is a second block similar to the plate c but located in the form for printing the address upon an envelop. c^3 is an aperture formed in the surface of the block c and extending part way through the plate. c^4 is a laterally extending passage communicating with the inner end of the aperture c^3 and opening at the vertical end of the block c . c^5 is an extension of the passage c^4 through one of the filling blocks and c^6 is a further extension of said passage through the frame or chase. c^7 is an exhaust pipe communicating with an exhaustor c^8 .

e is a groove formed along the edge of the plate c and e^3 is a groove extending along the side from the groove e to the bottom of said plate. e^2 is a groove extending at right angles from the groove e and extending part way down the side of the block c .

f is a piece of spring metal secured at f^2 in a groove e^4 on the bottom of the block c extending in a part f along said groove to the edge of said plate, then turning upward in a part f^3 in the groove e^3 , then turning sidewise in a part f^4 above the groove e , then downward in a part f^5 into the groove e^2 . The part f^4 is normally held above the surface of the block c and serves as a gage or stop for positioning a stenciled plate to be put upon the surface of said block.

d is a printing plate having the name and address of the person to whom the letter is to be sent and adapted to fit upon the outer surface of the block c and be held thereon by the pressure of the outer air.

The operation of the above described device is as follows:

The exhaustor c^8 is set in motion producing a draft inward through the aperture c^3 . The printing plate d is placed by hand upon the block c and it is drawn and held tight to the surface by the suction from the suction pipe c^7 communicating passages and the aperture c^3 .

When there are a large number of printing plates, one is placed upon the surface of the block c , as above described, its position being accurately fixed by the stops or gages f^4 . It is held thereon by the vacuum until an impression has been made. It is then removed by hand and a plate with another address is substituted for it on the face of the block c .

The stop f^4 serves to limit and fix the position of the printing plate d and when the impression is made the part f yields because of its elasticity allowing the printing surface to come in contact with the printing plate. When the platen is removed the pressure is withdrawn from the part f^4 and it is again projected above the surface to serve as a limiting gage for the next address plate.

What I claim is:

1. In an apparatus of the kind described, a block adapted to be bound in the form, said block being provided with an aperture in its surface, and means for producing a vacuum in said aperture, in combination

with a printing plate adapted to engage on the surface of the first named plate and being held thereon solely by the vacuum, whereby such a plate may be readily adjusted to place and removed between impressions.

2. In an apparatus of the kind described, a type-holding plate and a printing plate, means for bringing said plates together and

separating the same for taking successive impressions and a vacuum apparatus on said type-holding plate adapted to removably hold a printing plate on said holding plate to make an impression.

In testimony whereof, I sign this specification.

REED ADAMS.