R. ADAMS.

PRINTING APPARATUS.

APPLICATION FILED NOV. 4, 1915.

1,221,815. Patented Apr. 10, 1917.

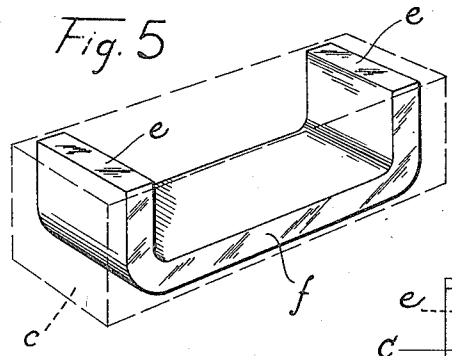


Fig. 5

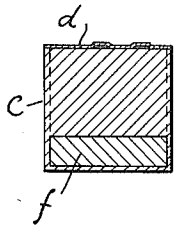


Fig. 4

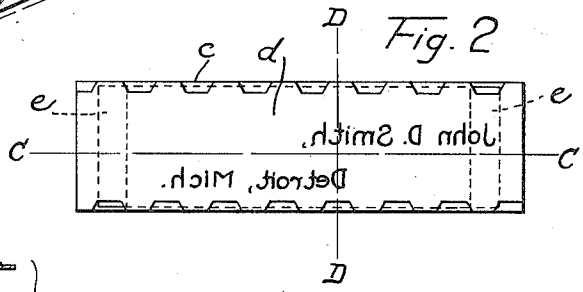


Fig. 2

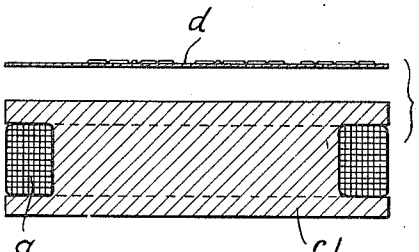


Fig. 6

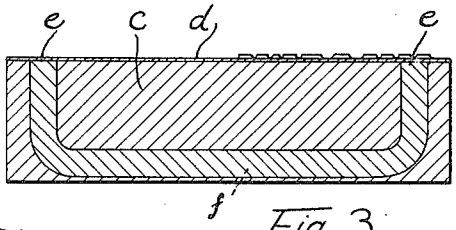


Fig. 3

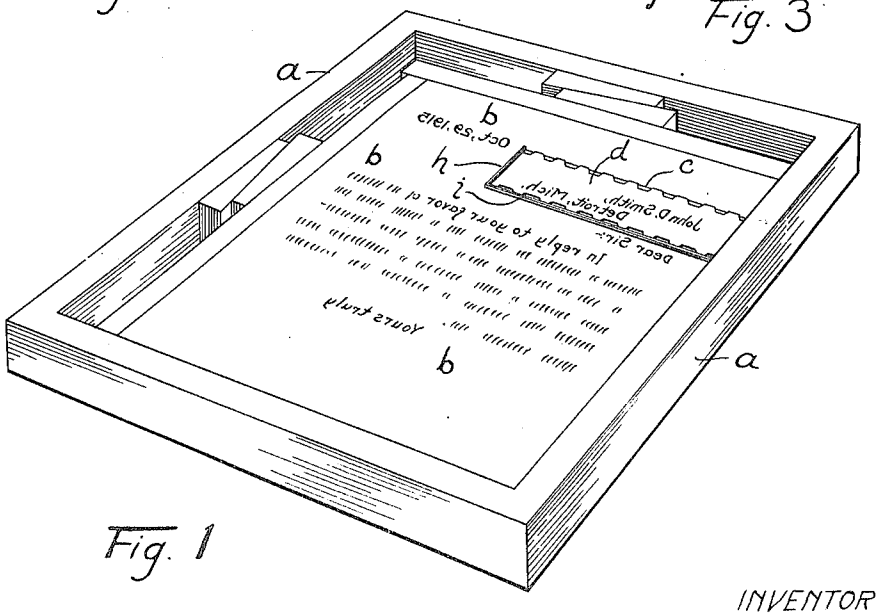


Fig. 1

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PRINTING APPARATUS.

1,221,815. Specification of Letters Patent. Patented Apr. 10, 1917.

Application filed November 4, 1915. Serial No. 59,534.

To all whom it may concern:

Be it known that I, REED ADAMS, a citizen of the United States, residing at Lapeer, county of Lapeer, 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 means for fixing address plates in place in apparatus in which the address is to be changed after each impression.

In the accompanying drawings I have shown my invention as applied in connection with a printing press where a circular letter is to be sent to a variety of addresses.

It is understood that this application is by way of illustration and that my invention is generally applicable wherever a fixed type or type-bearing plate is replaced, in the usual body of set type or "form" for different impressions of the printing apparatus.

In the accompanying drawing:

Figure 1 is a perspective view of a frame, or chase, having a circular letter, or similar "form," set therein with a device embodying my invention, also set in said frame, as a part of the "form," for holding the address plate in position and ready for use.

Fig. 2 is a plan view of the plate fixing device with the plate thereon.

Fig. 3 is a section on the line C—C Fig. 2.

Fig. 4 is a section on the line D—D Fig. 2.

Fig. 5 is a fantom perspective view of a device embodying my invention.

Fig. 6 is a sectional view similar to Fig. 3 showing a modified form of my invention; in this figure the address plate is parted from the device for fixing it in position.

a is the frame, or chase, in which is fixed, in the usual way, the "form" or the type and filling material *b*. *c* is a rectangular block which may be mainly of type metal and which has a surface of the size and shape to receive the required address plate and has a thickness a little less than the standard length of type.

h i indicates pieces or strips of metal which may be placed upon two adjacent sides of the block *c*, their upper edges rising a very little above the upper surface of said block to assist the accurately fixing of the address plate in position.

In the type metal of the block *c* I place a permanently magnetized bar *f* having its ends bending at right angles and extending to the surface of the block so that its pole surfaces *e e* are flush with the surface of said block toward the ends of the block. *d* is an address plate of thin sheet metal in which the letters are struck up in the usual way and which is of material that will be attracted and held by the magnet *f*.

When the plate *d* lies upon the block *c* its raised letters are in the same plane as the letters of the form.

The block *c* is placed in the position in the frame *a* at which it is desired that the address shall come, the poles *e e* of the magnet *f* being adjacent to the printing surface. The plate *d* is placed in position with its edges against the pieces *h i* and it is attracted and held in this position by the magnet *f*. When an impression has been made the plate *d* is removed and a second plate is placed in position which is attracted and held as before by the magnet. Thus, the plates may be accurately and rapidly adjusted and held in position until the impression is made and then readily removed.

In the modification of Fig. 6 I have shown a soft iron block f^1 surrounded by a coil *g* of insulated wire, a current may be kept circulating in this wire so as to keep the block f^1 magnetized when it will act as above described with reference to the block having a permanent magnet.

What I claim is:

The combination of a form having a space therein, a block having magnetic qualities adapted to occupy said space with its face below the printing surface of said form, and a series of interchangeable plates adapted to be held in place on the face of said block by the magnetism of the same, each of said plates having a printing surface adapted to come into the same plane as the printing surface of said form.

In testimony whereof, I sign this specification.

REED ADAMS.