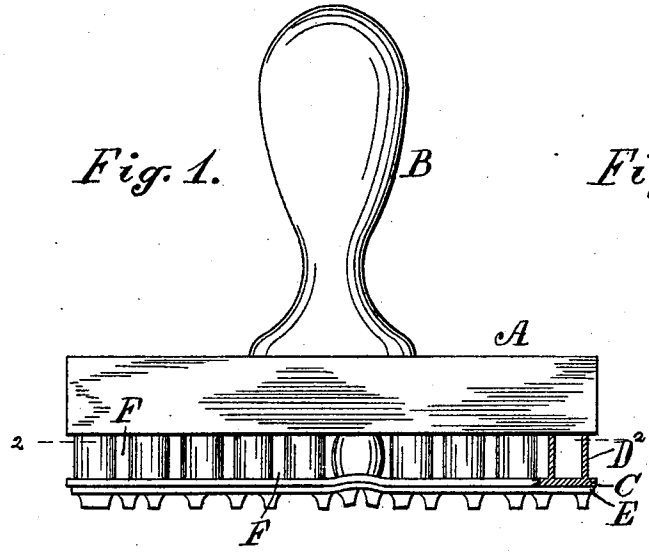
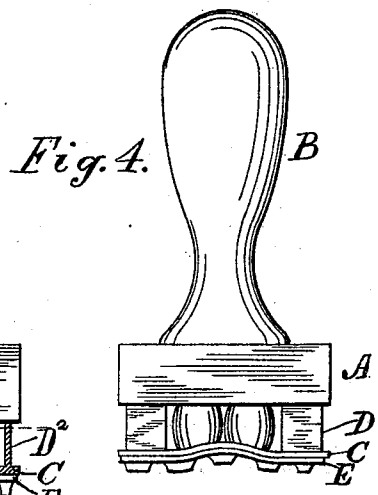
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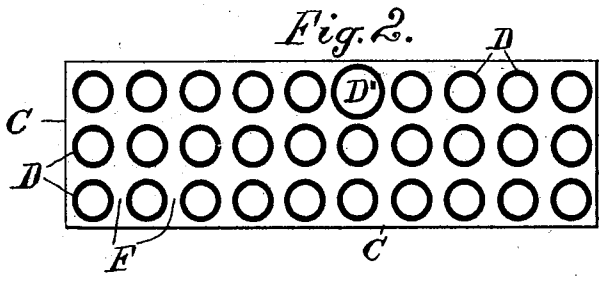
L. R. BLACKMORE.

PRINTING STAMP.

No. 605,945. Patented June 21, 1898.







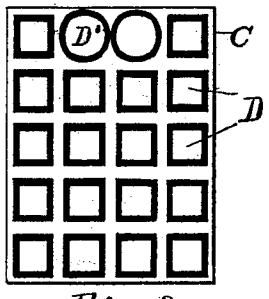


Fig. 3.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

L. R. BLACKMORE.

PRINTING STAMP.

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Fig. 5.

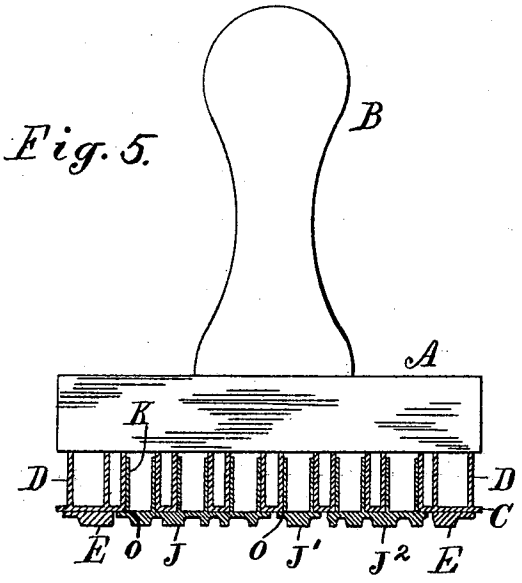


Fig. 8.

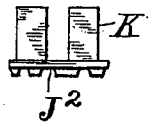


Fig. 6.

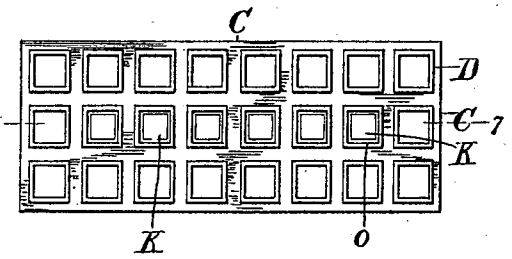
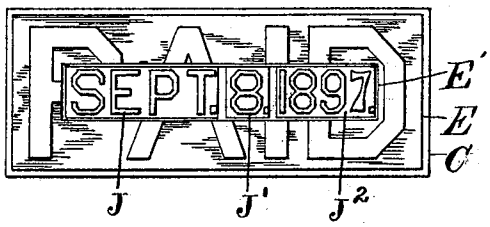


Fig. 7.



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UNITED STATES PATENT OFFICE.

LAWRENCE R. BLACKMORE, OF NEWARK, NEW JERSEY.

PRINTING-STAMP.

SPECIFICATION forming part of Letters Patent No. 605,945, dated June 21, 1898.

Application filed August 11, 1897. Serial No. 647,772. (No model.)

To all whom it may concern:

Be it known that I, LAWRENCE R. BLACKMORE, a citizen of the United States, residing at Newark, county of Essex, State of New Jersey, have invented certain new and useful Improvements in Printing-Stamps, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

The present invention relates to printing-stamps such as have a rubber face for printing duplicate impressions, and the improvement relates particularly to a flexible backing of novel character for such stamps.

It has been common heretofore to mount the rubber type-plate of such a printing-stamp upon an india-rubber cushion having interior partitions to form a cellular structure, the partitions being employed to support the different parts of the type-plate where the letters are distributed over the same. When this construction has been employed for large stamps, the middle of the stamp has proved to yield much less than the border, as the air-cells beneath such middle portion could not, when compressed, expand laterally, by reason of their contact with one another, the entire expansion being thus confined or chiefly conveyed to the outer cells, which are unsupported upon the outer side. The pressure is therefore balanced upon the contiguous inner cells, and the comparative rigidity in the middle portion of such a stamp prevents the edges from making their proper impression and prevents the middle portion of such stamp from yielding in the desired manner when it encounters any prominence upon an uneven surface.

In the present invention I connect the type-plate with the body of the stamp (having the handle) by a series of independent hollow columns, which support all the portions of the type-plate independently and equally. The columns may be of round or polygonal cross-section and may be made air-tight to confine the air within the column or otherwise.

The series of hollow columns is made integral with a suitable india-rubber bed upon which the type-plate is in practice secured, the free ends of the columns being cemented or otherwise attached to the stamp-body, which is usually formed of wood. The bed with the attached hollow columns is conveniently made in a large piece in a suitable die and a section cut off of size to support the type-plate of the intended stamp. The die for molding such a large bed-piece is most readily formed by sawing or planing a series of grooves in a metal block at right angles to one another and arranging such grooves to form a series of independent adjacent square columns attached to the bed-plate.

By extending an opening from the interior of any column through the bed-plate I am enabled to insert the shank of a removable attachment for changing the date in a dating-stamp. In such construction the hollow column forms a cell, of square or round form, and the shank would be made hollow and of thin india-rubber, adapted to fit snugly within such column, so as to hold the removable attachment in place when in use, while permitting its removal when necessary. A portion of such dating-stamp—as, for instance, the name of a month—may be formed with a plurality of shanks fitted through several of such openings into the cells formed by the hollow columns.

The attachment exhibiting the day of the month may be secured by a single shank fitted to one cell only, and the shank of such attachment would be made square and fitted through a square opening in the bed-plate to prevent such attachment from turning.

Where a plurality of shanks is formed upon the removable attachment, the shanks may obviously be made round or any other shape, as their number prevents the attachment from turning upon the bed-plate.

The invention will be understood by reference to the annexed drawings, in which—

Figure 1 is a side elevation of a stamp having the bed-plate provided with round hollow columns. Fig. 2 is a section of the same on line 2 2 in Fig. 1. Fig. 3 is a similar section of a smaller stamp with the bed-plate having square columns. Fig. 4 is a side elevation of such stamp. Fig. 5 is an elevation of a hand-stamp with removable dating attachments shown in section on line 7 7 in Fig. 6 extended through the shanks of the removable portions. Fig. 6 is a view showing the under side of the bed-plate with the

columns attached thereto and the shanks of the several dating attachments inserted within the central row of columns. Fig. 7 is a front view of the dating-stamp, showing the name of the month, the day of the month, and the year secured by separate shanks and removable separately from the bed-plate to be independently changed when necessary; and Fig. 8, a side view of the dating attachment J^2.

A designates the wooden body of the stamp, and B the handle for operating the same.

C is the bed-plate, formed integral with the hollow columns D, and E is the type-plate, cemented to the bed-plate C. One of the columns at the right-hand corner of the bed-plate in Fig. 1 is represented in section to show the extension of the hollow within the column to the under side of the bed-plate, the hollow extending through the opposite end of the column, which is cemented or suitably attached to the stamp-block A.

The columns are separated by spaces F, which permit them to expand independently when compressed, as shown near the middle of the type-plate in Fig. 1, where the bed C is depressed and the column expanded immediately beneath such depression. The corresponding column D′ in Fig. 2 is represented with its middle portion expanded, as in Fig. 1, the spaces F permitting such expansion without any restraint from contact with the adjacent columns. In Fig. 3 the columns are shown square in section, and two columns at one end of the stamp are shown expanded, as by pressure applied to the bed over such columns, the flat sides of the columns being thus forced outwardly toward one another and their corners drawn in, so that the column is expanded, as shown in Fig. 3, into an approximately circular form between its ends, which are attached, respectively, to the bed-plate C and the body A. The spaces F between such square columns provide for such expansion without interference, and the construction thus permits each hollow column to offer precisely the same resistance and to yield in precisely the same degree under a given pressure. Large portions of the type-plate are thus supported equally and are adapted to yield equally when compressed.

The square columns obviously support a larger proportion of the type-plate area than round columns of the same diameter, but either shape affords the opportunity to manufacture the bed-plate in large pieces with the columns attached, from which a portion may be cut of the desired shape to form a required stamp, the bed-plate when cut to the desired shape being cemented upon a suitable block A to support the type-plate, as shown in Figs. 2 and 3 of the drawings.

If the hollow columns are not joined air-tight to the stamp-block A, their power of resistance is of course dependent upon their thickness and strength, but if they are cemented air-tight the air confined in each column forms a pneumatic cushion, which causes the walls of the column to be expanded under pressure, and thus increases the supporting power of each column. The independent columns in either case possess the power of independent expansibility, and thus furnish a perfectly uniform support for all of the parts of the type-plate.

In Figs. 5 to 7 the type-plate E is shown with the letters "Paid" formed thereon and a slot E′ cut through such letters and through the type-plate to receive the separate removable dating attachments J, J′, and J^2, the first bearing the letters "Sept.," the second bearing the figure "8" for the day of the month, and the third bearing the number of the year, "1897." These three attachments are separately secured to the stamp by shanks K, fitted through openings *o* in the plate C. In Fig. 5 eight hollow columns are shown upon the length of the stamp, such openings being extended from the interior of six of the columns through the bed-plate C, as is also indicated in Fig. 6. The dating attachment J is shown with three tubular shanks K, fitted to three of the columns near the left end of the row. The attachment J′ is shown with one shank fitted to the fourth column, and the attachment J^2 is shown with two shanks fitted to the last two columns, from which the openings are extended. The attachments with their shanks would be formed of yielding india-rubber, and the columns are shown square, and the shanks extended within the same are shown square and fitted tightly thereto, so as to be held therein by the elasticity of the material. The attachment J′ being provided with one shank would be liable to turn within the column if the shank and column were round, but the formation of a square opening through the bed-plate C and a square shank upon the attachment serves to hold such attachment in a fixed position whatever the shape of the column beneath.

By forming the columns in parallel rows or series I not only facilitate the molding of the columns in a mold having parallel grooves, but am enabled to utilize the separate rows of columns for holding removable attachments upon separate lines when required by the arrangement of characters upon the stamp.

The hollow shanks are in practice made with very thin walls and are made shorter than the height of the columns, as shown in Fig. 7, to permit the compression of the column when required without resistance from the shank. The shank is, however, preferably made to press against the stamp-block A when compressed beyond a suitable limit, so as to make an air-tight joint therewith and enable the air within the shank to form a pneumatic cushion and resist further compression.

Hand-stamps are in practice made most readily by attaching an elastic cushion to the stamp-block A and cementing a type-plate with the requisite type upon the surface of

such cushion, and such construction is illustrated in Fig. 1; but it is obvious that the bed-plate C may be molded with the type thereon.

The bed-plate and hollow columns are made integral, of india-rubber, to furnish a convenient foundation for a type-plate; but it is obvious that the bed-plate could be secured to the stamp-block A and the type-plate secured to the open ends of the hollow columns.

The invention is illustrated upon a stamp to be held in the hand; but it is obvious that a printing-stamp of similar construction may be used in a printing-press or in any mechanism where it would operate in substantially the manner described, and it will therefore be understood that where I have claimed a hand-stamp herein such expression includes any printing-stamp of corresponding construction.

Having thus set forth the nature of my invention, what I claim herein is—

1. A hand-stamp having the type-plate supported upon a series of independent yielding hollow columns with interspaces F adapting the columns to yield laterally, as and for the purpose set forth.

2. A hand-stamp having a stamp-block A and a yielding bed-plate C with a series of independent yielding hollow columns having interspaces F and cemented air-tight to the stamp-block, and forming independent pneumatic cushions beneath the bed-plate, substantially as herein set forth.

3. In a hand-stamp, the combination, with a stamp-block A, of an elastic rubber bed-plate C having a series of independent hollow rubber columns integral therewith, and cemented air-tight to the stamp-block, and a type-plate attached to the bed-plate, as and for the purpose set forth.

4. A bed-plate for hand-stamps formed of elastic rubber having integral therewith parallel series of square hollow columns with interspaces F, substantially as herein set forth.

5. A bed-plate for hand-stamps, formed of elastic rubber having integral therewith parallel series of independent square hollow columns with interspaces F and their longitudinal and transverse sides in alinement, as and for the purpose set forth.

6. In a hand-stamp, the combination, with a stamp-block A, of an elastic rubber bed-plate C having integral therewith parallel series of independent square hollow columns having interspaces F with their longitudinal and transverse sides in alinement, the ends of the columns being cemented air-tight to the stamp-block, and a type-plate being cemented to the surface of the bed-plate, as and for the purpose set forth.

7. In a hand-stamp, the combination, with a stamp-block A, of a rubber bed-plate having yielding cells formed upon the back, and attached to such stamp-block, with an opening from one of said cells through the said bed-plate, a type-plate secured to a portion of such bed-plate, and a removable dating attachment having an elastic hollow shank fitted through such opening to the interior of such cells, as and for the purpose set forth.

8. In a hand-stamp, the combination, with a stamp-block A, of a rubber bed-plate having yielding cells formed upon the back and attached to such stamp-block, with openings from certain of said cells through the said bed-plate, a type-plate secured to a portion of such bed-plate, and a removable dating attachment having a plurality of elastic hollow shanks fitted through said openings to the interior of such cells, as and for the purpose set forth.

9. In a hand-stamp, the combination, with a stamp-block A, of a rubber bed-plate having yielding square cells formed upon the back and attached to such stamp-block, with an opening from one of said cells through the said bed-plate, and a removable dating attachment having an elastic square shank adapted to fit within such cell and to be held from turning by the flat sides of the same, as and for the purpose set forth.

10. In a hand-stamp, the combination, with a stamp-block A, of a rubber bed-plate having yielding cells formed upon the back and attached to such stamp-block, with square openings from certain of said cells through the said bed-plate, a type-plate secured to a portion of such bed-plate, and separate dating attachments having rubber type-plates with hollow square elastic shanks fitted detachably through such openings to the interior of the said cells, the attachment for the name of the month having a plurality of said shanks, and the attachment for the day of the month having a single square shank adapted to hold it from turning when fitted through the square opening, substantially as herein set forth.

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

LAWRENCE R. BLACKMORE.

Witnesses:
L. LEE,
THOMAS S. CRANE.