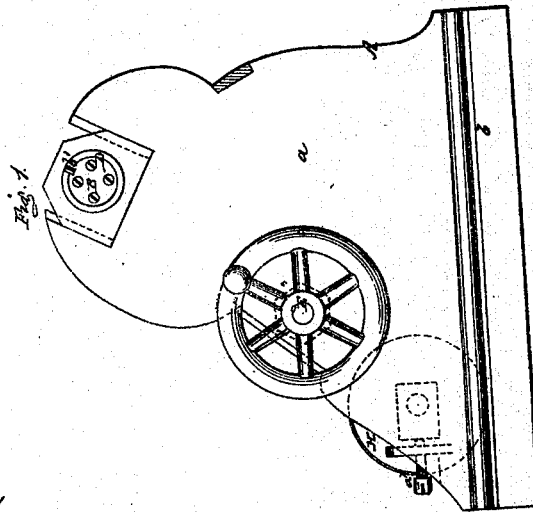
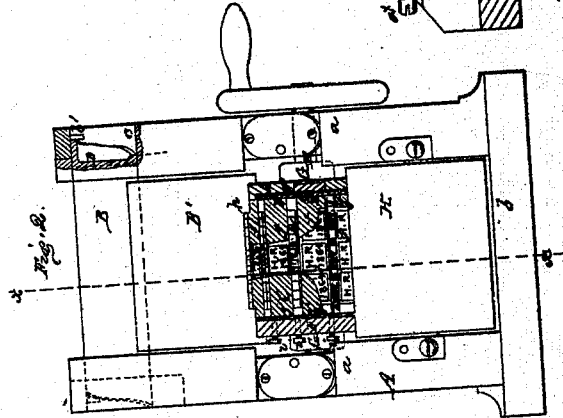
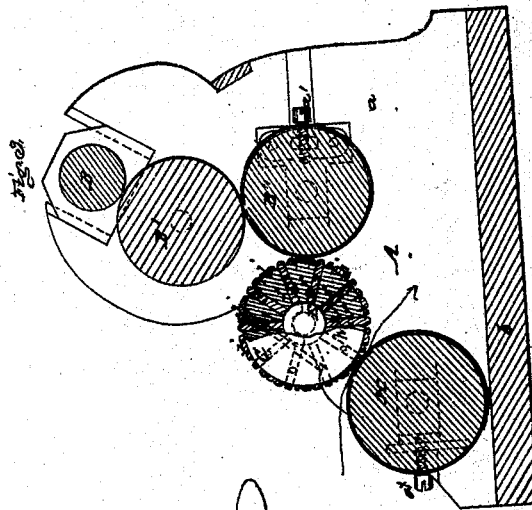


H. Reddich.
Printing Press.
Patented Apr. 25. 1865.

N^o 47454.



Witnesses { *C. L. Telford*
Geo. S. Smith

Inventor
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UNITED STATES PATENT OFFICE.

HENRY REDLICH, OF CHICAGO, ILLINOIS.

PRINTING-PRESS.

Specification forming part of Letters Patent No. 47,454, dated April 25, 1865.

To all whom it may concern:

Be it known that I, HENRY REDLICH, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Printing-Press; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of my invention; Fig. 2, a front view of the same, the type-roller being in section; Fig. 3, a side sectional view of the same taken in the line *x x*, Fig. 2.

Similar letters of reference indicate like parts.

This invention relates to a new and improved printing-press for general use, but more especially designed for printing labels or small bills, &c.

The object for the invention is to obtain a press of simple construction by which any person can do their own printing in a small way—druggists, for instance, print their own labels, storekeepers their own circulars, bill-heads, &c.

The invention will prove valuable in those cases where dates are put on labels, and consequently require to be changed every day, and where the titles on labels are frequently changed.

The invention consists in the employment or use of a type-cylinder arranged with a pressure-cylinder and an inking device, as hereinafter fully shown and described.

A represents the framing of the press, which may be constructed in any suitable manner to support the working parts. Two side pieces, *a a*, attached to a base, *b*, will answer for a framing. The inking device is composed of three rollers, *B B' B''*, all of which are shown in Fig. 3. The rollers *B* and *B'* may be made of wood or iron. The roller *B''* may be of wood covered with felt, or a roller of glue and molasses may be used.

The roller *B''* has its journals fitted in adjustable bearings, which may be operated or adjusted by screws *a'*. (See Fig. 3.) Other means, however, may be employed for this purpose, so as to graduate the pressure of roller *B''* against roller *B'* and the type-roller *C*, hereinafter described.

The upper roller, *B*, besides a rotary motion, has a longitudinal vibrating motion given it. The means shown in the drawings for effecting this result are composed of two cams, *D D*, one at each end of the roller, and placed in opposite positions, said cams coming alternately in contact with pins *b'*, fitted permanently in the bearings *e*, in which the cams work or rotate. Various plans, however, may be devised for this purpose.

The type cylinder *C* has its shaft *E* working in fixed bearings. This cylinder, in cases where the type or form requires to be changed or altered for dates, &c., is constructed as follows:

On the shaft *E* there are placed two circular metal heads, *F* and *F'*, one of which, *F*, has a circular recess, *d*, made in its inner side, to receive a circular wooden head, *e*, to which longitudinal wooden segments, *f*, are attached at one end by nails or screws *g*. (See Fig. 2.) The opposite ends of the segments *f* are also attached by nails or screws, *g'*, to a similar head, *e'*. The metal heads *F F'* are clamped firmly on the shaft *E* by nuts *G G*, as shown in Fig. 2. Between the wooden segments *f* the types *h* are placed, which require to be frequently changed, as types for dates, for instance, the segments *f* being made of such dimensions as to admit of that arrangement. These types *h* are secured in position by screws *i*, which pass through the metal head *F* and bear against types or quads, as shown in Fig. 2. To the exterior of segments *f* stereotype-plates *j* are tacked or screwed, said plates *j* being that portion of the form which does not require to be frequently changed.

In cases where permanent forms are to be used the type-cylinder may be composed entirely of wood, with stereotype-plates attached to its periphery.

H represents a cylinder, against which the type-cylinder bears, and between which and the type-cylinder the paper to be printed upon passes. This cylinder *H* may be of wood or iron covered with india-rubber, and paper placed over the latter in order to obtain the necessary yielding property and at the same time have a certain degree of firmness to insure a clean impression being taken. Rubber alone would be too yielding; and the impression blurred by the sinking of the type into it.

From the above description it will be seen

that by turning the type-cylinder C the latter will have its type or form perfectly inked through the medium of the inking device composed of the rollers B B' B'', and by passing the paper between the type-cylinder C and cylinder H the paper will be printed or receive the impression from the type or form on cylinder C, the pressure of the type or form on the paper being graduated by adjusting the bearings of the cylinder H, the latter being adjusted by means of set-screws *a**, weights, or any other suitable means.

Thus by this simple arrangement a very efficient printing-press is obtained, one that may be operated by any one of ordinary ability. It will answer an excellent purpose for retail

merchants, who require small labels in large quantities at short intervals, the printing of which amounts to a considerable sum in the course of a year.

I claim as new and desire to secure by Letters Patent—

The peculiar manner of constructing the type-cylinder C—to wit, by means of the metal heads F F', wooden heads *e e'*, nuts G G, wooden segments *f*, and removable types *h*, substantially as herein described.

HENRY REDLICH.

Witnesses:

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