S. HOLLINGSWORTH.

PRINTING PLATE CLAMP.

APPLICATION FILED JUNE 5, 1920.

1,401,982.

Patented Jan. 3, 1922.

Fig. 1.

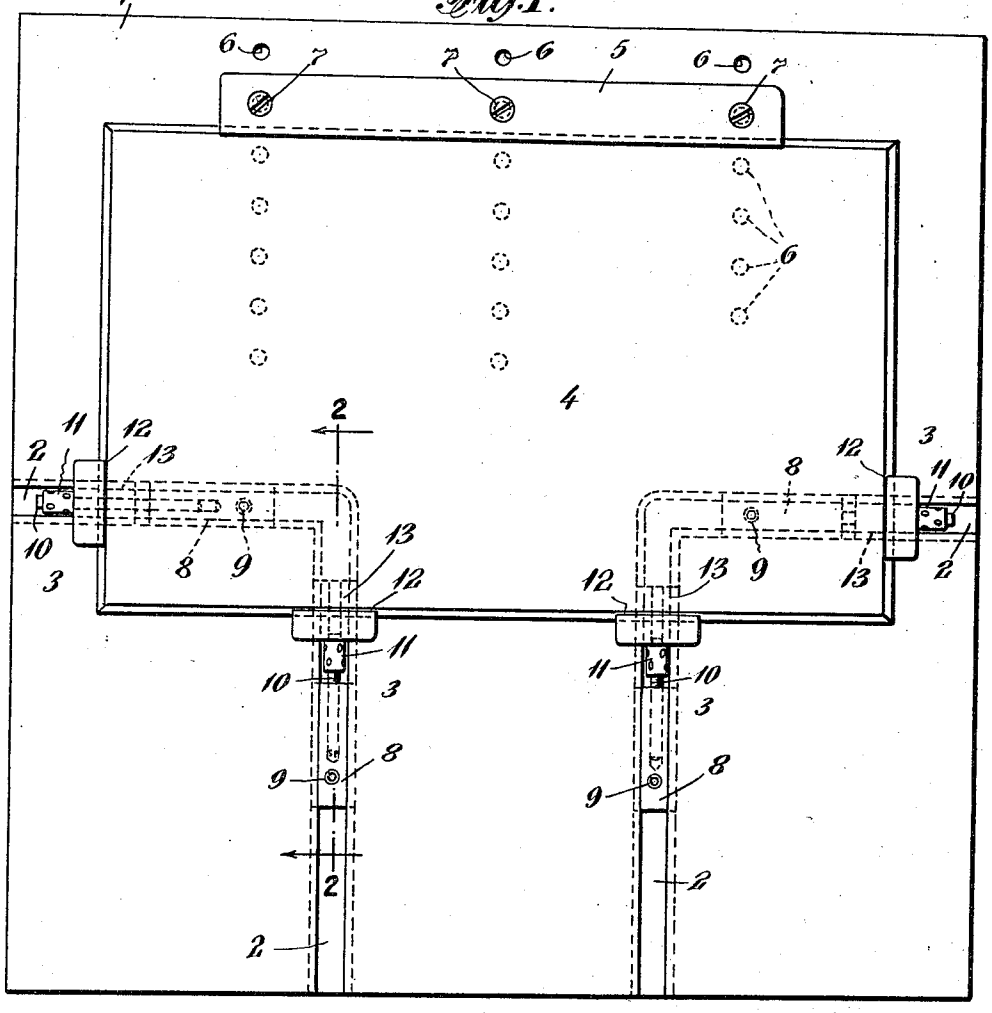



Fig. 2.

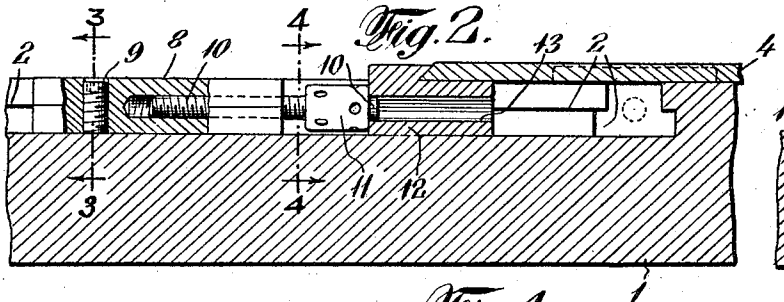



Fig. 3.

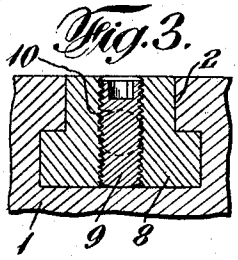
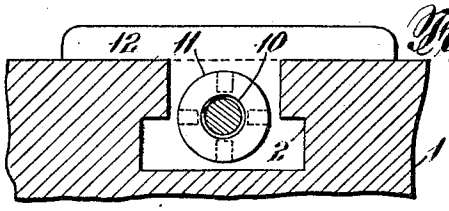



Fig. 4.




Inventor

Samuel Hollingsworth

By his Attorney

Paul Becker

# UNITED STATES PATENT OFFICE.

SAMUEL HOLLINGSWORTH, OF SCOTCH PLAINS, NEW JERSEY, ASSIGNOR TO BANK-NOTE PRESS COMPANY, OF PLAINFIELD, NEW JERSEY, A CORPORATION OF NEW JERSEY.

## PRINTING-PLATE CLAMP.

1,401,982. Specification of Letters Patent. Patented Jan. 3, 1922.

Application filed June 5, 1920. Serial No. 386,900.

*To all whom it may concern:*

Be it known that I, SAMUEL HOLLINGSWORTH, a citizen of the United States, and a resident of Scotch Plains, Union County, New Jersey, have invented certain new and useful Improvements in Printing-Plate Clamps, of which the following is a specification.

This invention relates to means for clamping a printing plate on a carrying member and has for its main object an arrangement whereby with the same construction of clamping means, an effective clamping of the plate may be obtained regardless of the width of available margin space remaining on the carrying member after the plate has been placed in position; and, with this and other objects in view, the invention consists of the hereinafter described means, a preferred embodiment of which is disclosed in the accompanying drawings in which

Fig. 1 is a plan view of a carrying member with a plate clamped in position by the improved clamping means:

Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1:

Fig. 3 shows a vertical section on the line 3—3 of Fig. 2; and

Fig. 4 shows a vertical section on the line 4—4 of Fig. 2.

The plate carrying member, indicated at 1, may be of any suitable form and is provided with undercut grooves 2 of such character and number as may be found desirable or expedient. In the present embodiment of the invention two pairs of grooves only are shown, and clamping means, generally designated by the reference character 3, are arranged to clamp three sides of the plate 4. In the present instance a head clamp 5 engages the remaining side of the plate and it will be understood that a series of openings 6 may be provided in the carrying member so that, by means of screws 7, said head clamp may be secured in such position on the carrying member as may be desired.

As all of the clamping members 3 are of the same construction only one will be described. 8 is an abutment member seated in a groove of the carrying member. This abutment member, as here shown, is of a height no greater than the depth of the groove in which it slides, so that it may, if desired, occupy a position beneath and within the confines of the printing plate. Said member is also capable of being slidably adjusted in its groove or, it may be removed entirely therefrom; it may also be reversed end for end by removal from and reinserted endwise into the groove in a new position. After it has been properly positioned, it is secured in position by tightening the binding screw 9, and it then becomes a stationary abutment. 10 indicates a stem having a threaded portion in engagement with the abutment member, and having a head 11, of greater diameter than the stem, located at a point intermediate its ends.

12 is a plate clamping dog slidably mounted in the groove and having a sleeve portion 13 the opening of which, as here shown, is of a greater diameter than that of the threaded portion of the stem. Head 11 is provided with wrench sockets as shown so that it constitutes an actuating means whereby the stem may be turned in the abutment member.

The parts constituting the clamping means may be assembled in different ways. As shown in Fig. 2 and in the lower part of Fig. 1, the abutment member may occupy a position beyond the confines of the printing plate. In that event, the clamping dog may occupy a position at one end of head 11 and in abutting engagement therewith, the unthreaded portion of the stem projecting idly into the sleeve portion of the clamping dog. It will now be understood that rotation in one direction of the threaded stem will cause it to move lengthwise of the groove and will effect a sliding movement of the clamping dog into engagement with the plate; and that rotation of the stem in the reverse direction will release the clamping dog from the plate. This arrangement will preferably be followed when there is a wide available marginal portion on the carrying member as shown in the lower part of Fig. 1. When the available marginal portion is relatively narrow, as shown at the sides in Fig. 1, the parts will preferably be assembled as follows: The abutment member will occupy an end for end reversed position beneath the printing plate and within the confines thereof. Stem 10 will be removed from engagement with the abutment member, and its threaded portion inserted through sleeve portion 13 of the clamping dog, said sleeve portion thus occupying a position intermediate the abutment member

and head 11. This arrangement is indicated at the sides in Fig. 1. The opening in sleeve portion 13 is larger than the diameter of the threaded portion of stem 10, so that when the latter is rotated in one direction head 11 of the stem will effect a sliding movement of the dog to clamp the plate. When the turning movement, in the other direction, of stem 10 occurs, the clamping dog will release the printing plate.

It will be seen, from an inspection of Fig. 1, that which ever way the parts are assembled, head 11 projects beyond the confines of the printing plate and that it is therefore always accessible for adjustment to clamp or unclamp the plate.

I claim:

A plate carrying member having a groove, a relatively stationary abutment member seated in the groove, a stem in threaded engagement with the abutment member, a head on the stem at a point intermediate its ends and of greater diameter than that of the stem, a clamping dog slidable in said groove, and a sleeve portion, carried by the dog, for the idle reception of the stem to admit of the positioning of the dog in engagement with said head at either end thereof, the head being intermediate the abutment member and the clamping dog in one position of the parts, and the clamping dog being intermediate the head and abutment member in the reverse position of the parts.

Signed at Scotch Plains, in the county of Union, and State of New Jersey, this second day of June, 1920.

SAMUEL HOLLINGSWORTH.