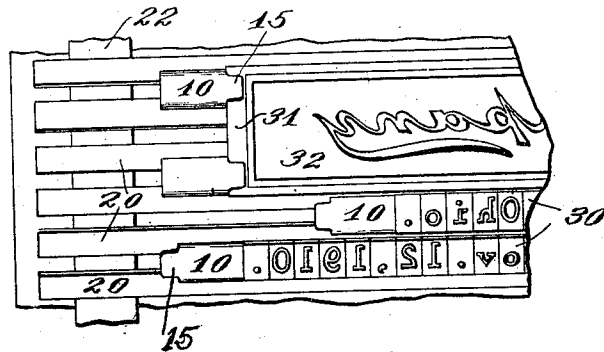
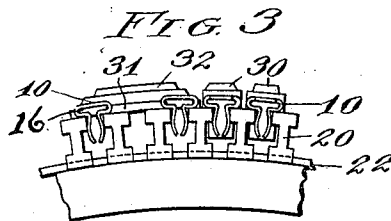
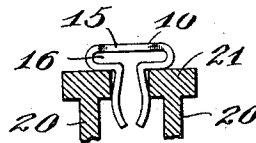
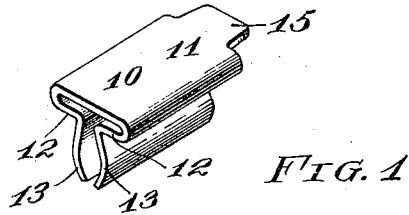


H. C. OSBORN.
RETAINING DEVICE FOR PRINTING SURFACES.
APPLICATION FILED FEB. 6, 1911.

Patented July 2, 1912.

1,031,661.



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY C. OSBORN, OF CLEVELAND, OHIO, ASSIGNOR TO THE AMERICAN MULTIGRAP. COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

RETAINING DEVICE FOR PRINTING-SURFACES.

1,031,661.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed February 6, 1911. Serial No. 606,799.

To all whom it may concern:

Be it known that I, HENRY C. OSBORN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Retaining Devices for Printing-Surfaces, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to a spring clip adapted to be used in conjunction with series of parallel rails to hold a suitable printing plate thereon.

The invention is in the nature of an improvement in the clip shown, described and claimed in the application of Ferdinand Hohenberger, #606,795, filed February 6, 1911. In that application is shown and claimed a sheet metal spring clip having outwardly bowed spring tongues, the clip adapted to be sprung between adjacent rails and serving the double purpose of preventing shifting of the type lengthwise of the rails and also, if necessary, properly spacing the rails with reference to each other. I have devised an improvement on such clip, whereby it may perform a third function of securing a printing plate in place without interfering with either of its other functions.

My clip is illustrated in the drawings hereof and is hereinafter more fully described.

In the drawings, Figure 1 is a perspective view of the clip; Fig. 2 is an end view of the same between two type-holding rails shown in section; Fig. 3 is an end view of a type form composed of two lines and a plate held on suitable rails; and Fig. 4 is a plan of a portion of such printing frame.

In the drawings, 10 represents the clip complete. As shown, it consists of a sheet metal member having an intermediate substantially flat portion 11 on the edges of which the metal rounds downwardly and then inwardly, as at 12, to points each side of the longitudinal central plane where these two portions are turned downwardly in outwardly convex wings, as shown at 13, while at one end of the top plate 11 is a projecting tongue 15.

In Figs. 2, 3 and 4, 20 indicates parallel rails having enlarged upper or outer edges

21. My clip is adapted to be sprung into place between these rails. Before application, the greatest distance from the outer side of one wing 13 to the outer side of the other is greater than the space between the rail heads, while the shortest distance between these outer convex surfaces, that is, at the lower end of the wings, is less than the distance between the rails. Accordingly, the clip may be easily placed with its free ends between the rails and then an inward pressure may spring those ends inwardly enough to allow the clip to pass into the position shown in Figs. 2 and 3. In this position the convexity of the wings engaging the inner corners of the rail heads effectively holds the clip in place. When the clip is in place, as shown in Figs. 3 and 4, its tongue 15 may overhang the printing plate, as 32, and securely hold the same on the surface of the rails. The parts may be very easily dimensioned to accomplish this. The printing plate 32 has a margin 31 of less height than the plate proper and the clip is made so that the projecting tongue may lie over and in contact with this margin. This proper height of the tongue is obtained by reason of the space 16 between the under surface of the intermediate portion 11 of the clip and the upper surface of the portions 12. In addition to this holding effect, my clip is shown in Figs. 3 and 4 as acting also as a stop for the lines of individual type. In this case the clip is conveniently turned so that the tongue 15 projects away from the type. In such position, this tongue forms very convenient means for removing the clip, either with the finger nail or any suitable tool inserted beneath the tongue. Whether the clip is used with its tongue holding the plate, as shown in the upper portion of Fig. 4, or with its tongue as a removal handle, so to speak, the clip also performs the function of properly spacing the rails, when they are not rigidly held, and are liable to stand too close to each other or too far apart.

Reference should be made to the application of Ferdinand Hohenberger, heretofore referred to and filed concurrently herewith, for claims on the clip without limitation to the lip 15. The present invention is intended to cover such lip, both when embodied in a clip in the specific form shown

and also when carried by any other structure adapted to be clamped between the adjacent rails.

5 Having thus described my invention, what I claim is:—

10 1. The combination, with rails and a printing plate adapted to rest on the surface thereof, of a clip having a head, and a pair of tongues connected with the head and free at their opposite edges and adapted to elastically engage adjacent rails, there being a lip projecting from the end of the head adapted to overhang the plate.

15 2. A clip for use between parallel rails and adapted to hold a printer's plate on the surface of the rails, said clip having an intermediate portion, the two portions bent backwardly from the edges of the intermediate portion, the backwardly bent portions and the intermediate portion being spaced apart, a lip projecting from the intermediate portion in the plane thereof and adapted to overhang a plate when the backwardly bent portions rest on the surface of the rails, and retaining tongues projecting from the backwardly bent portions.

20 3. A clip comprising an intermediate portion, two portions bent backwardly from the edges of the intermediate portion, two longitudinally straight tongues bent from the edges of the backwardly bent portions, and a lip extending from the end of the intermediate portion.

4. A clip made of a single piece of sheet metal and bent to make a head composed of an intermediate flat portion, two rounded edges with inwardly projecting portions substantially parallel with the flat portion and spaced therefrom, two tongues projecting from the two inwardly projecting portions respectively and standing side by side, and a lip projecting from the end of the head substantially in the plane thereof.

45 5. As a new article of manufacture, a spring clip for use between a pair of parallel typeholding rails, said clip being made of a single piece of sheet metal having a flat intermediate portion, rounded edges, two inwardly projecting portions substantially parallel with the flat portion and spaced therefrom, two tongues projecting from the inner edges of the inwardly projecting portions, and a lip projecting from one end of the flat intermediate portion, said lip being adapted to overhang and engage the flange of a printing plate resting on the surface of rails between which the tongues project.

55 In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

HENRY C. OSBORN.

Witnesses:

REGINALD GEO. PHILLIPS,
FRED. J. LYKE.