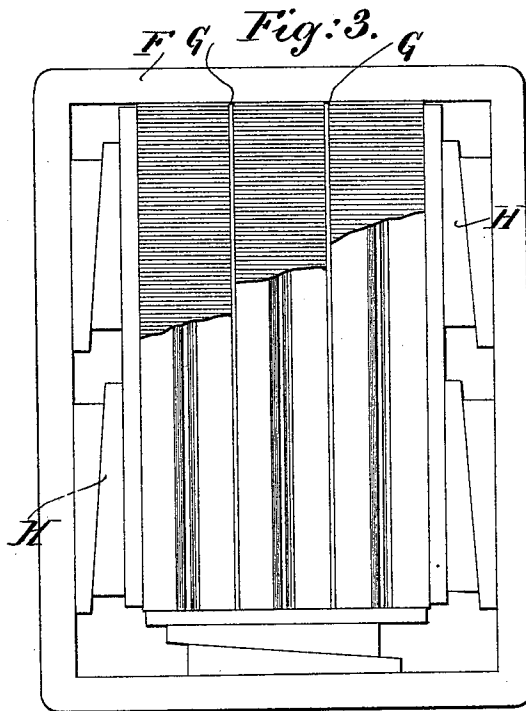
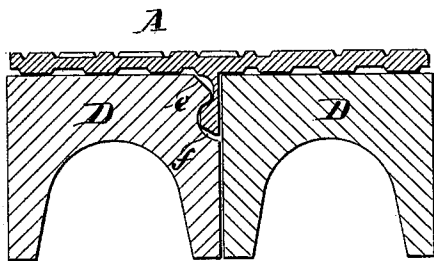
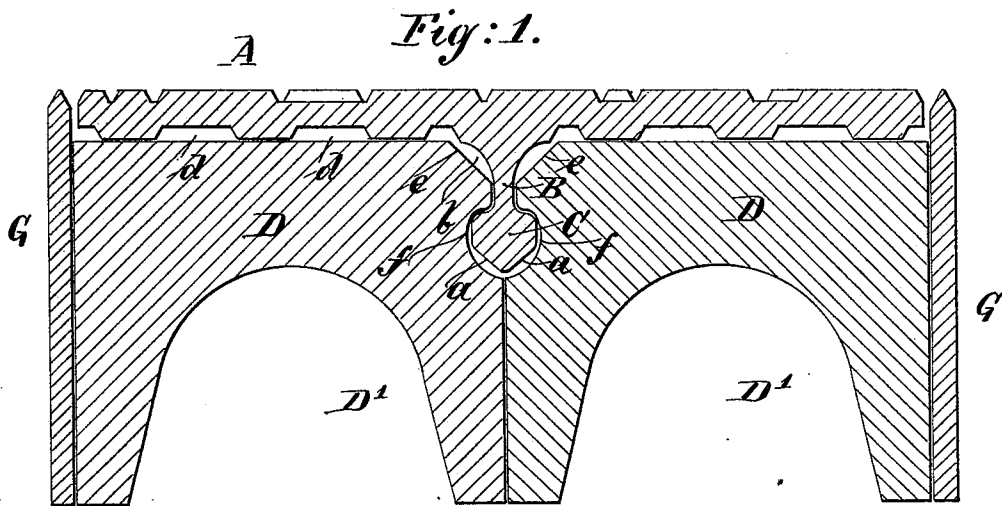


(No Model)

B. F. CURTIS.
PRINTING PLATE.

No. 582,778.

Patented May 18, 1897.



Witnesses
S. Petri-Palmelo
H. M. Flannery

B. F. Curtis Inventor
By *his Attorney* *Seam, F. Tamm*

UNITED STATES PATENT OFFICE.

BENJAMIN F. CURTIS, OF BROOKLYN, NEW YORK.

PRINTING-PLATE.

SPECIFICATION forming part of Letters Patent No. 582,778, dated May 18, 1897.

Application filed June 1, 1896. Serial No. 593,759. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. CURTIS, a citizen of the United States, and a resident of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Printing-Plates, of which the following is a specification.

This invention relates to new and useful improvements in printing-plates and bases for the same.

The object of my invention is to provide a new and improved printing-plate which is simple in construction, can easily be fitted, adjusted, and secured or removed and replaced, is held firmly and securely in proper position, and at the same time can adjust itself to the roller so as to print uniformly throughout, and which plate is not apt to be injured by handling, as it has no sharp edges.

In the accompanying drawings, forming a part of this specification and in which like letters of reference indicate like parts in all the views, Figure 1 is an enlarged detail cross-sectional view of my improved printing-plate with base and rules. Fig. 2 is a similar view showing a slight variation. Fig. 3 is a plan view of a printer's chase in which my improved printing-plates are held, parts being broken away.

The printing-plate A is made as thin as practicable and with a longitudinal central rib B on its under side, said rib having its bottom edge beveled upward and outward at each side, as at *a*, or at one side only and provided on each side or one side only, a short distance above the bevel, with a longitudinal groove *b*, whereby a substantially diamond-shaped or half-diamond-shaped head C is formed along the entire bottom of said rib B. The plate may also be provided on the under side with the usual shallow grooves *d*. The base is formed of two sections D, of iron, aluminium, or other material, and provided in the under side with the conventional longitudinal groove *D'*. Each section D or only one section is provided along the inner upper corner edge with the bevel *e*, extending downward and outward, and in the inner side with the longitudinal groove *f* a short distance below the bevel *e*, so that when the two base-

contact the two grooves *f* or the single groove *f* forms a longitudinal receptacle for the head C on the rib B, and the bevel or bevels *e* form a V or substantially V shaped longitudinal groove in the upper surface of the two contiguous base-sections. The base-sections D are placed into the chase F in pairs and the rules G longitudinally between them. The width of the two base-sections D for each plate A is slightly greater than the width of the plate, as appears from Fig. 1. Then the plates A are placed longitudinally over the corresponding sections, the beveled under side of the head C resting in the groove formed by the bevels *e* in the upper surface of the two corresponding contiguous base-sections. Then the plate A is pressed down, whereby the bevels *a* of the head C, acting on the bevels *e* of the base-section D, press said base-sections from each other sufficiently to permit said head to pass down between the base-sections and into the groove *f*, as shown. The plate A now rests flat on the upper surfaces of the base-section. After all the plates or smaller pieces of plates have thus been placed on the base-sections to fill the chase to the desired degree the wedges or quoins H are driven up and all the base-sections D and rules G pressed firmly together and locked in place. The noses *h* formed in the inner or adjacent sides of the base-sections D thus extend into the grooves *b* above the head C, and thus hold the plate A on the base-sections in such a manner that it is impossible to lift off the plate A without, however, pinching or binding said plate, but leaving the same slight play longitudinally and transversely. To remove a plate A, it is only necessary to loosen up the wedges or quoins H more or less and to lift up the plate. The beveled upper edges of the head C, then acting on the rounded or beveled sides of the grooves *f*, press the two corresponding base-sections D from each other sufficiently for withdrawing the head C without disturbing the other plates A or base-sections D in the chase F, as they are merely displaced laterally. The rules G do not in any way assist in holding the printing-plates A on the base-sections D, and in fact these parts are entirely independent of each other,

the only function of the rules in this case being to print lines.

The wedges, quoins, or other furniture are placed directly against the sides of the base-sections, if so desired, it being unnecessary to use a side rule for holding the plates in place.

It is impossible to lock the plate unless the same rests snugly on the base-sections, as the head C would prevent pressing the sections D together as long as the plate and its head are at an inclination to the tops of the base-sections.

If the plate is at a slight inclination by accident, it is drawn down into proper position by the actions of the sides of the grooves *f* on the upper surfaces of the head C. At the same time the plate A has a slight play to permit of its adjusting itself to the printing-press, so as to print uniformly.

A length of plate A of one line or a dash is held as securely as a larger piece. The plate is not clamped or pinched or held so firmly that it cannot give or adapt itself to the printing-press or roller and, as stated, is entirely independent of the rules G. Sharp or knife-edge corners have been avoided, and if by chance the head C or noses *h* are bruised or dented this does not in the least affect the effectiveness of the plate or the facility of adjusting, securing, or disengaging the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A printing-plate, provided on its under

side with a longitudinal rib having a beveled bottom edge and a longitudinal groove in the side above said head, substantially as herein shown and described.

2. The combination with a printing-plate provided on its under side with a longitudinal rib, having a beveled bottom edge and a longitudinal groove in each side above said head, of two base-sections having their upper inner corner edges beveled downward and outward and provided with a longitudinal groove below said bevels, substantially as herein shown and described.

3. The combination with a chase of one or more printing-plates, each provided on its under side with a longitudinal rib, having its under side beveled and provided with a longitudinal groove, above said bevel, twice as many base-sections as there are printing-plates, of which base-sections at least one for each printing-plate has its upper corner, adjacent to the rib, beveled downward and outward and which section has a longitudinal groove below said bevel, and of wedges introduced between the sides of the chase and the outer sides of the base-sections, substantially as herein shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 12th day of May, 1896.

BENJAMIN F. CURTIS.

Witnesses:

OSCAR F. GUNZ,
N. M. FLANNERY.