L. A. SCHMIDT.

PRINTING PLATE STARTER.

APPLICATION FILED OCT. 11, 1919.

1,381,349. Patented June 14, 1921.

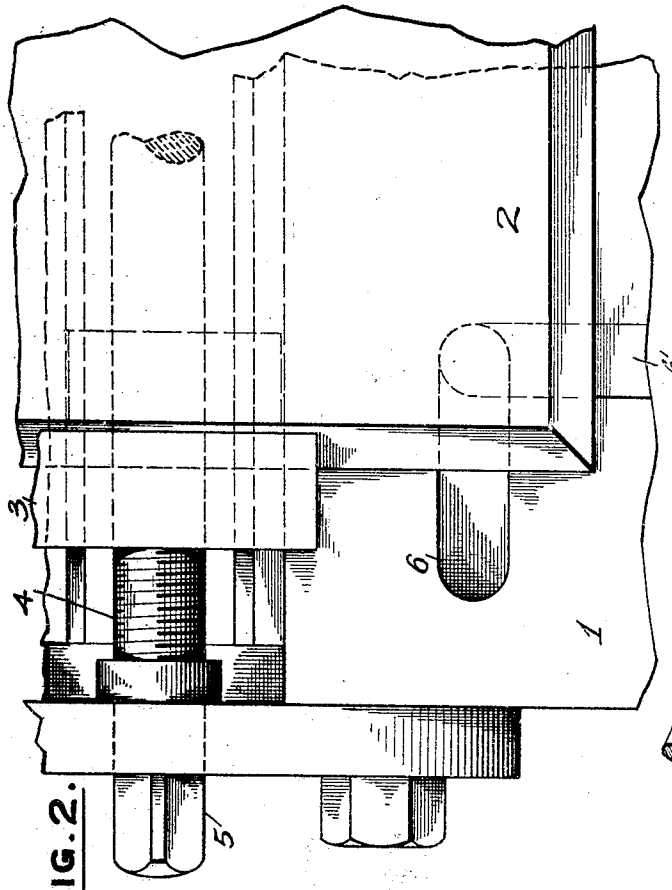


FIG. 2.

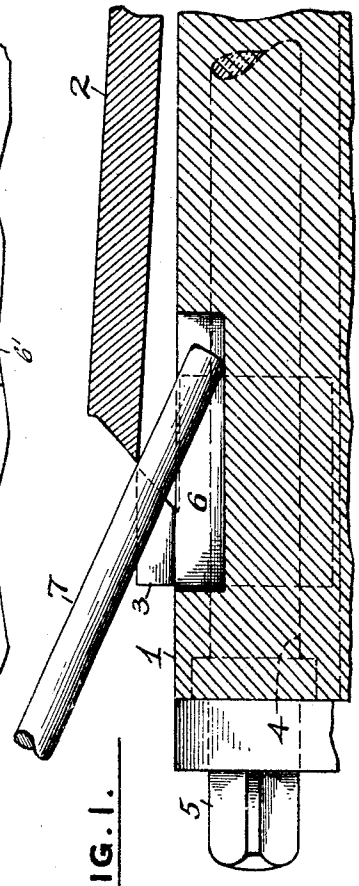


FIG. 1.

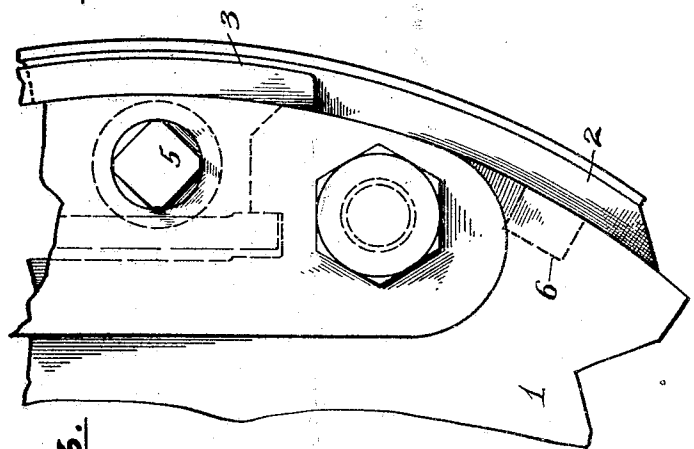


FIG. 3.

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PRINTING-PLATE STARTER.

1,381,349. Specification of Letters Patent. Patented June 14, 1921.

Application filed October 11, 1919. Serial No. 330,085.

To all whom it may concern:

Be it known that I, LOUIS A. SCHMIDT, a citizen of the United States, residing at New York city, county of Kings, and State of New York, have invented certain new and useful Improvements in Printing-Plate Starters, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to certain improvements in plate lifters or plate starters for use with printing machines.

It is very desirable in operating printing machines that the curved stereotype plates or other forms be placed on the printing cylinders or other form members of the printing couples and removed therefrom as speedily as possible. Curved stereotype plates, for instance, are clamped tightly on the cylinders, and it frequently happens that such plates stick to the cylinders and are difficult to remove after they have been freed from the plate clamping devices, thus occasioning trouble in freeing them from the cylinder and consequent loss of time.

It is the especial object of the present invention to provide a simple construction by which a printing plate may be easily and quickly lifted or started from the form support on which it is clamped, the support being so constructed that a simple tool, such as a wrench handle or the like may be inserted beneath the edge of the plate to start the plate from the support.

Such a construction has been illustrated in connection with the accompanying drawings, in which:

Figure 1 is a broken sectional view of a plate cylinder showing one method by which a plate may be quickly freed from the surface thereof.

Fig. 2 is a plan view of the construction shown in Fig. 1.

Fig. 3 is an end view of the construction shown in Fig. 2.

Referring now to these drawings, the invention has been illustrated as embodied in a plate carrying cylinder such as those employed for carrying curved stereotype plates. It will be understood, however, that the invention has been designed for and may be used with other plate carriers and in other relations.

The cylinder or other plate carrying members will be provided or formed with a space dimensioned to extend in the support both sides of the edge of the plate in which a starting tool may be positioned in such relation to a plate that it may be brought into engagement therewith to start or free the same from the cylinder wall. Various forms of tools and means for manipulating them for effecting this result, as well as various configurations of tool space may be used, and certain preferred forms are shown in the drawings.

In the drawings a simple construction is illustrated for permitting a plate to be readily started or freed from its support and, as shown, this support is a cylinder which is indicated by the numeral 1, and the plate is marked 2. This plate is held in clamped position on the cylinder by sliding plate clamps 3 of any suitable construction, these clamps being carried on clamp operating rod 4 provided with head 5 for the application of a wrench or other operating tool. As shown the cylinder surface is formed with a depressed portion or recess 6, this recess being sunk in the cylinder wall and extending on each side of the edge of the plate when the plate is in clamped position. The outer side of the recess 6 is dimensioned lengthwise and widthwise sufficiently to permit the ready insertion of any handy tool therein, and is as shown deep enough and extends beyond the edge of the plate inwardly a sufficient distance to afford a sufficient fulcrum for the starting tool. This recess is preferably located so as to be near a corner of the plate thus being free of the clamp and, furthermore, if desired, a second recess 6′ may be provided to extend under and beyond an adjacent edge of the plate and for convenience in construction this recess 6′ may be joined with the recess 6, as indicated in Fig. 2, so that the plate may be started from the plate support or cylinder from either edge of the plate. This construction is very simple and adds no expense to the cylinder or other support and permits a plate to be readily started by the pressmen either from in front of the cylinder or sidewise thereof as desired.

Any tool may be employed for starting the plate which will act in the recess 6 and pass under the edge of the plate so that it will act to pry the plate from the cylinder or other support. Such a tool may be a

wrench handle such as commonly used around printing presses, or a rod or bar, such as indicated at 7 in Fig. 1, the end of this bar being inserted in the recess and passing beneath the plate acts against the under edge of the plate and lifts it clear of the support.

This construction provides a simple and efficient method for starting plates which require no special construction of starting tool, but the pressmen may use any tool at hand.

What I claim is—

1. A plate carrying member having a plate supporting surface of greater dimensions than the plate supported thereby, and a recess or groove formed in the surface and extending outwardly beyond the edge of the plate when in position and inwardly under the edge of the plate, said groove or recess being proportioned to permit a tool to be inserted from beyond the edge of the plate in under the edge of the plate, the bottom of the groove or recess toward its inner end being formed to provide a fulcrum point for the tool.

2. A plate carrying member having a plate supporting surface of greater dimensions than the plate supported thereby, a groove or recess formed in the surface near the point occupied by the corner of a plate when in position on the surface and extending outwardly beyond the edge of the plate and inwardly under the edge of the plate, a second groove or recess formed in the support near the corner of an adjacent edge of the plate when in position, said grooves or recesses being proportioned to permit a tool to be inserted from beyond the edges of the plate in under the edges, the bottoms of the grooves or recesses toward their inner ends being formed to provide a fulcrum point for the tool.

3. A plate carrying member having a plate supporting surface on which a plate may be clamped in position and provided with spaces at two adjacent edges of a plate in which a tool may be positioned so as to be brought into engagement with either edge of the plate whereby a plate may be started from the support from either a front or side edge.

In testimony whereof I have hereunto set my hand.

LOUIS A. SCHMIDT.