C. WINKLER.
DEVICE FOR HOLDING MATRICES IN STEREOPHATE CASTING BOXES.
APPLICATION Filed SEPT. 23, 1921.
1,407,615. Patented Feb. 21, 1922.
To all whom it may concern:

Be it known that I, Carl Winkler, a citizen of the Swiss Republic, residing at Bern, Switzerland, have invented a new and useful Improvement in Devices for Holding Matrices in Stereoplate-Casting Boxes, (for which I have filed application in Germany, July 10, 1920,) of which the following is a specification.

For the purpose of holding the matrices in machines for casting plates, springs or screws are mostly used, which however when several plates are cast consecutively, seldom hold the matrices sufficiently firmly to prevent displacement, as is absolutely necessary in making plates of accurate register for multi-colour printing. Springs have the further drawback that, when putting in a matrix, the device must be kept open by hand against the tension of the springs, so that only one hand is free for manipulating the matrix. Where screws are used for holding the matrix their manipulation has been found to be tedious, and there is always danger of the screws being overturned. My present invention relates to a device for holding matrices which is opened, for the purpose of putting in the matrix, and then closed, for holding said matrix, by means of a worm gear. As is well known worm gearing also acts as a locking device, and this assures that the device for holding the matrix will remain in position when opened, thus enabling both hands to be used for manipulating the matrix. If desired, springs may be provided, in addition, for keeping the device in the matrix-holding position, because the self-locking property of the worm-gear would prevent the device, when open, from being unintentionally closed.

In the drawing my invention is shown by way of example, Fig. 1 being a section through the upper part of a box for curved stereoplates to which the device for holding the matrices is applied, and Fig. 2 a front elevation of the principal parts of said device.

The matrix-holding device consists of two bars b, c the part b being fixed on the box a, whilst the part c can be moved on b. The part c carries toothed racks d which engage toothed segments f carried by the spindle e, so that by turning the spindle e backwards or forwards the bar c will be correspondingly moved. This turning movement of the spindle e is obtained by the worm h which engages in the toothed segment g and is adapted to be turned by the hand-lever i. In the end position of the lever i shown in Fig. 2 the bar c is drawn to the right (Fig. 1), so that the matrix k will be held tightly between the jaw k on this bar and the bar b. If the lever i is turned through 180° the spindle e will be partially rotated by the worm h, and the toothed segments f on this spindle then moving the toothed racks d will withdraw the bar c and release the edge of the matrix. By the spring indicator-arm attached to the lever i snapping into a notch it can be seen whether the lever i arrives properly in the position in which the matrix is held fast.

Between the bars b, c are shown springs m which serve for taking up play in the worm and therefore assure that the edge of the matrix will be firmly held.

What I claim and desire to secure by Letters Patent of the United States is:

In a device for holding a matrix in a stereocasting box the provision of a worm for moving the matrix-holding jaw.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CARL WINKLER.

Witnesses:

Rosa Widmer,
Samuel George Tribb.