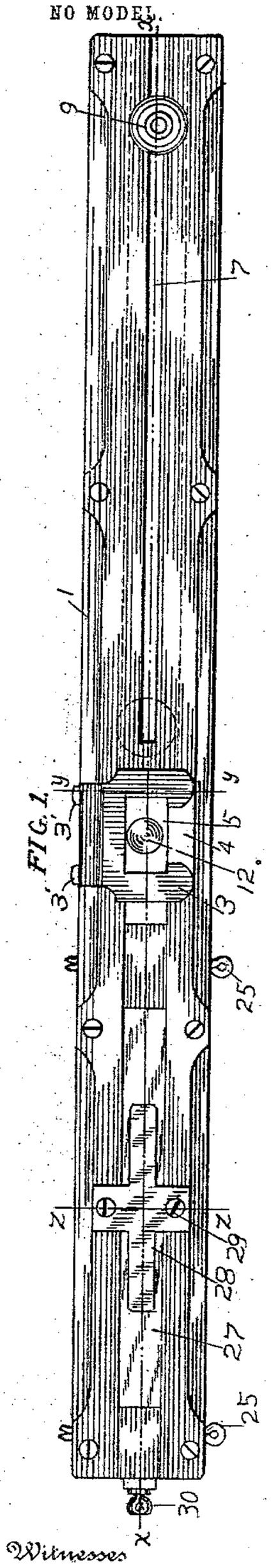
No. 740,471. PATENTED OCT. 6, 1903.

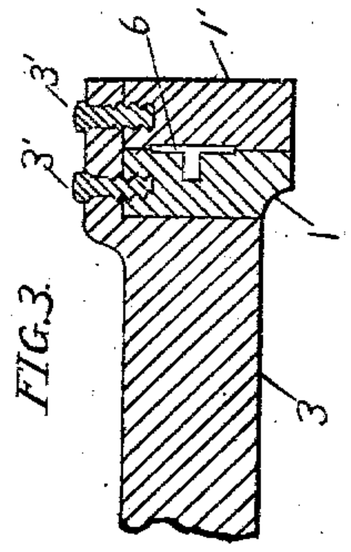
C. P. RUBLY.

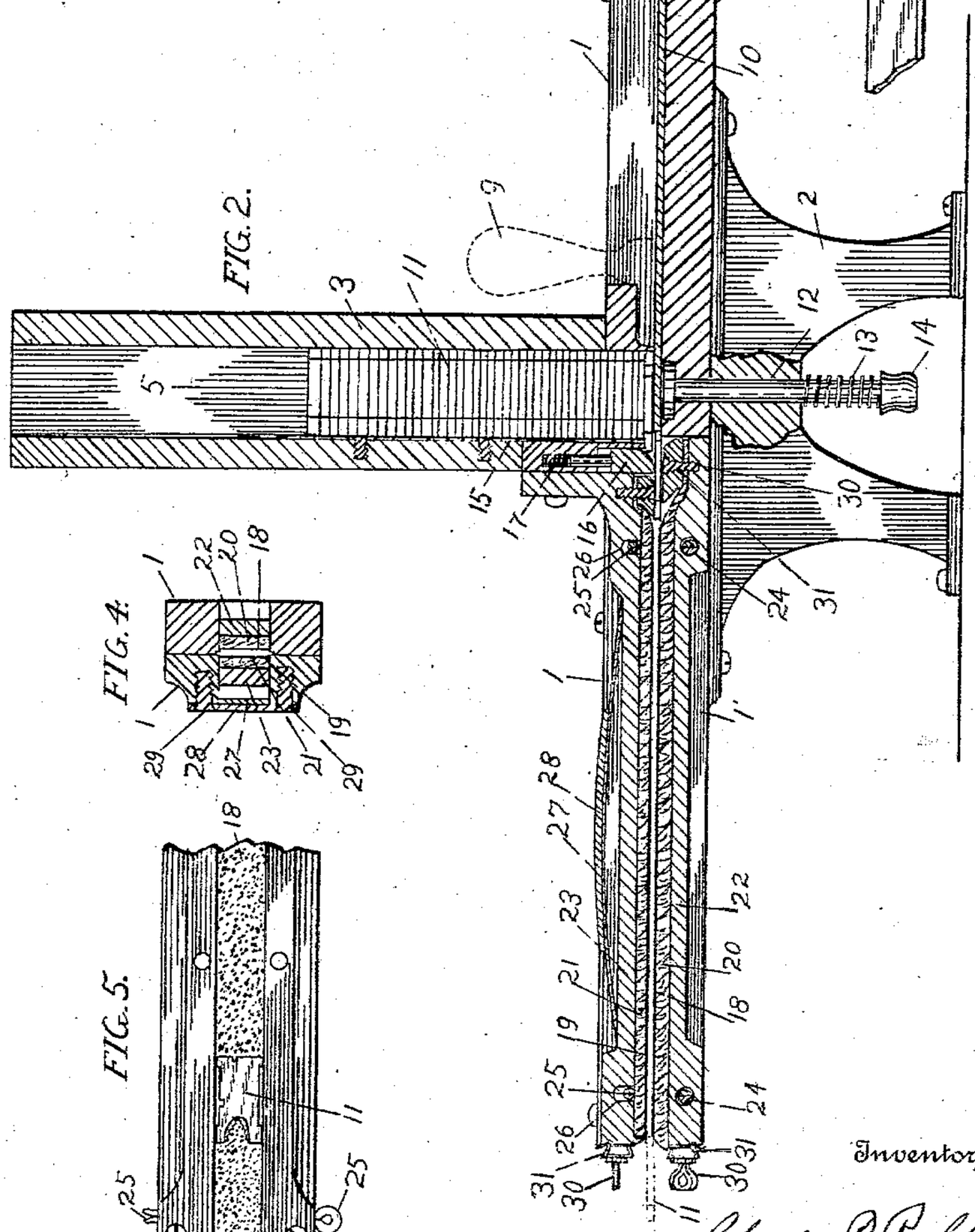
# LINOTYPE MATRIX CLEANER.

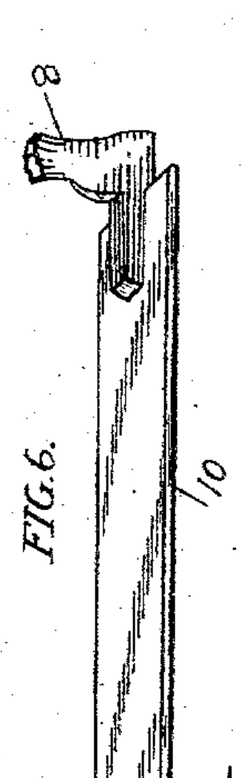
APPLICATION FILED AUG. 26, 1902.

NO MODEL.










Witnesses

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No. 740,471. Patented October 6, 1903.

# UNITED STATES PATENT OFFICE.

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## LINOTYPE-MATRIX CLEANER.

SPECIFICATION forming part of Letters Patent No. 740,471, dated October 6, 1903.

Application filed August 26, 1902. Serial No. 121,129. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES P. RUBLY, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Linotype-Matrix Cleaners, of which the following is a specification.

This invention relates to linotype-matrices, and has for its objects to produce a wiping mechanism for linotype-matrices, such as are now in use, to render such mechanisms more efficient, to clean matrices without injuring or destroying the delicate parts thereof, to render the cleaning-surfaces readily renewable, and other objects as are herein specified and more particularly pointed out in the claims.

To these ends the invention consists of the construction, arrangement, and combination of the several parts illustrated in the drawings, in which—

Figure 1 is a top plan view of one of my matrix-cleaners ready for use. Fig. 2 is a view, partially in cross-section, taken on the line $x\,x$ of Fig. 1, showing the interior of the implement when it is supplied with matrices and in the actual operation of cleaning them. Fig. 3 is a view taken in cross-section on the line $y\,y$ of Fig. 1. Fig. 4 is a view in cross-section, taken on the line $z\,z$ of Fig. 1. Fig. 5 is a top view of the wiping end of the implement when the top wiping member and spring connections are removed. Fig. 6 is a view in perspective, showing part of the operating-blade of the implement.

Similar characters of reference denote like and corresponding parts throughout the several views.

Referring to the drawings, the main or body portion of the implement is composed of an upper piece 1, united to a lower piece 1′, clamped together in a horizontal position and supported by a standard 2, together with an upright magazine member 3, having a flange extending across the members 1 and 1′ and secured with screws 3′ 3′, sustaining said member 3 as a vertical column with one side open, as at 4, and having a rectangular passageway 5, in which the matrices to be wiped are designed to be stacked flatwise in a column, access to the column being had by the fingers through the open side 4 aforesaid. A flat channel 6, partially cut out of the piece 1 and partially out of the piece 1′, having open communication upward with the slot 7, which accommodates the neck 8 of the handle 9, attached to the operating-blade 10, is designed to guide the blade 10. The blade 10 of the implement is a long rectangular piece of flat metal somewhat thinner than the minimum of any of the matrices in the column 11 which are arranged to be operated upon. A manipulating-plunger 12, held normally downward by a coiled spring 13, constrained between the upper wall of the standard 2 and the cap-piece 14, serves to thrust the column 11 or any part of it upward within easy reach of the thumb or finger of the operator.

A guard 15 is arranged against one of the inner sides of the magazine 3, having its lower end extending to a distance a little greater than the thickness of the thickest matrix above the bottom of the sliding channel of the matrix-plate. This guard holds any but next to the lowermost matrix from advancing forward when the lowermost matrix is forced out from underneath the column, as will hereinafter be explained. An automatic sliding stop 16, actuated by a coiled spring 17, is arranged to hold it in readiness for the next succeeding operation after the lowermost one has been thrust from underneath it. The cleaning-surfaces of the implement are constructed from emery-cloth, emery-paper, or other suitable fabric 18 and 19, facing each other, between the faces of which the matrices to be cleaned are forced endwise throughout their length. The said cleansing-strips are supported by felts or fabrics 20 and 21, each mounted on holders 22 and 23, respectively. The lower holder is held in position by pins 24 24, passing through the member 1′ of the implement, and the upper member 23 is held by similar pins 25 25, which pass through slots 26 26, allowing the said member to yield upward, so as to make provision for the various thicknesses of matrices to be cleaned. A flat spring 27, curved upward in the middle and resting against the yoke 28, secured to the body-piece 1 by screws or otherwise at 29, serves to supply sufficient

pressure on the cleansing-surfaces. The strips of emery-paper or other material are secured by fastening-screws 30 30, which secure the fastening members 31 31, clamping the ends of said strips.

The operation of the device is now readily explained. Matrices which have been used and are defective on account of accumulations of dust-laden grease, verdigris, or other accretions, are stacked into the magazine from time to time with their templeted ends extending in the direction of the wipers. In case any of the lowermost matrices do not fall flat and lie properly in the bottom, as they should, by a pressure on the cap 14 of the sliding rod 12 they will be brought up into easy access with the fingers and may be placed aright and then allowed to fall back into their proper position. It will be understood that when no matrix is passing between the wipers they will lie with almost touching faces, their distance upward being regulated by the slots 26 in the upper holder. These slots may be so adjusted that the surfaces will not engage with the thin blade 10, with which the implement is operated. The implement being in readiness for use and a supply of matrices in the magazine, if the blade be pushed forward by the handle 9 the front end thereof striking the lowermost matrix of the column thrusts it forward, automatically lifting the stop 16, which scrapes over the top surface of the said matrix and prevents any additional matrices following it. This lowermost matrix is in this way pushed forcibly through between the two cleansing emery-cloths 18 and 19 throughout their lengths and dropped into a proper receptacle at the farther end. As explained before, the blade being thinner than the thinnest matrix to be cleaned does not sustain any of the pressure of the wiping-surfaces while being withdrawn into position for an additional operation. This operation may be repeated with considerable rapidity, as is evident from the construction. The supply downward if not prompt enough by the weight of the column may be aided by the pressure of the hand or by adding additional weight of any kind.

Having thus particularly described the construction and operation of the implement embodying my invention, I do not mean to be confined to the exact details shown and described, as many of the details may be greatly varied without departing from the general spirit of my invention.

What I claim, therefore, and desire to secure by Letters Patent, is—

1. The herein-described wiping mechanism consisting of a substantially horizontal body portion supported by a standard, an upper and a lower wiping member, each composed of a rigid piece covered with felt or other suitable fabric, and faced with emery-cloth or a similar abrasive, a part of said body portion provided with a groove in direct line with the space between said wipers, a blade located in said groove in a position to be thrust between the wiping-surfaces, the said blade having a handle attached thereto by means of a shank extending through a slot, substantially as and for the purpose specified.

2. In a linotype-matrix-wiping mechanism of the kind described, the combination with the wipers, magazine, and operating-blade, of an automatic stop arranged at the base of the magazine, and consisting of a wedge-shaped member constrained downward by a coiled spring, and adapted to have the lowermost matrix of the column thrust thereunder by means of the blade aforesaid, to prevent additional matrices following the same when thrust thereunder, substantially as and for the purpose specified.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES P. RUBLY.

Witnesses:
G. F. SCHROENKER,
A. T. STOVER.