

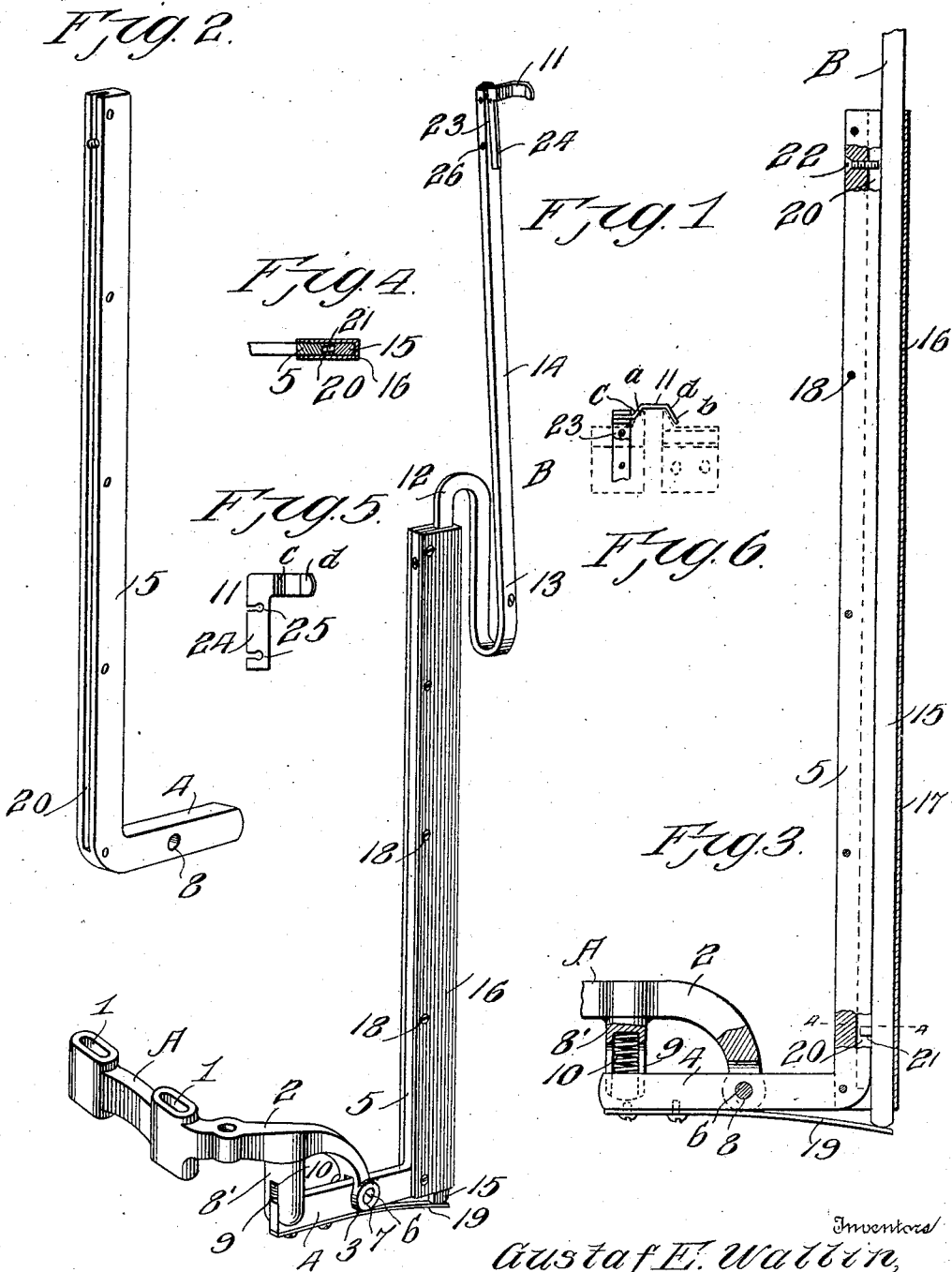
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KNIFE WIPING DEVICE.

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UNITED STATES PATENT OFFICE.

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KNIFE-WIPING DEVICE.

937,664.

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To all whom it may concern:

Be it known that we, GUSTAF E. WALLIN and DAVID F. SHRYOCK, citizens of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented new and useful Improvements in Knife-Wiping Devices, of which the following is a specification.

This invention relates to linotype machines, and more particularly to a knife wiper for removing the shavings from the knives between which the slugs are forced for the purpose of trimming off what is known as the rib and overhang on each slug after the casting thereof.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively simple and inexpensive to manufacture, reliable and efficient in use, of durable and substantial design, and so arranged as to be comparatively free from the objections commonly found in devices of this character.

Another object of the invention is the provision of an improved wiper which is in the nature of an attachment so designed as to be readily applied to linotype machines already in use without requiring any alterations.

Another object of the invention is the provision of a knife wiper in which the flag is yieldingly held in coöperative relation with the knives and in which the flag is mounted on a rod telescopically arranged in a casing and supported on a spring to serve as a buffer.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a perspective view of the knife-wiping device. Fig. 2 is a perspective view of the standard for supporting the flag-carrying rod. Fig. 3 is a vertical longitudinal sectional view of the lower portion of the device. Fig. 4 is a transverse section on line 4-4, Fig. 3. Fig. 5 is a detail view of the flag. Fig. 6 is a plan view of the flag showing its coöperative relation with the slug-trimming knives.

Similar reference characters are employed

to designate corresponding parts throughout the views.

Referring to the drawing, A designates a bracket or casting that is adapted to be secured to the bottom of the first elevator of the linotype machine in the place of the usual casting employed at that point, and this bracket has vertically-extending slots that are elongated so as to provide for lateral adjustment of the bracket on the elevator, the slots being provided for the reception of screws or bolts for securing the bracket to the elevator. On the bracket A is a rearwardly-extending arm 2 projecting from one end of the bracket which has its free extremity curved downwardly and formed into bifurcations 3 for receiving the horizontally-extending arm 4 of the standard 5, the standard and arm constituting a bell crank lever which is adapted to tilt on a fulcrum 6 passing through apertures 7 in the bifurcations and an aperture 8 in the arm 4. Depending from the arm 2 of the bracket is a stud 8' having an upwardly-extending slot 9 in its lower end to accommodate the forward extremity of the arm or limb 4 of the lever standard 5, and this stud is chambered to accommodate a helical spring 10 whereby the standard is urged forwardly at its upper end. The standard 5 carries a rod B that is provided at its upper extremity with a flag or wiper 11. The rod B is doubled twice on itself at a point intermediate its ends to form loops 12 and 13, which loops are bent in planes at right angles to each other. The upper extremity or member 14 of the rod is inclined forwardly to a slight degree and the lower extremity or member 15 of the flag-supporting rod is disposed behind the standard 5 and is held in place against the standard by a casing 16 of U-shaped cross section so as to embrace the standard 5 from the rear. This casing coöperates with the standard to form a vertical guide passage 17 in which the lower member 15 of the rod B is slidably mounted, the casing being secured to the standard by screws or rivets 18. The lower end of the casing is open and the rod member 15 projects out of such open end and rests on a leaf spring 19 secured to the horizontal arm 4 of the standard so that the spring acts as a buffer whereby the rod B can yield under strain.

The rear side of the standard 5 is provided with a longitudinal slot 20 and on the

member 15 is a stud 21 that engages in the slot 20. At the upper end of the slot is a removable stop in the form of a screw 22 for preventing the rod B from pulling out of the casing 16.

The upper extremity of the rod B is provided with a longitudinal slot 23 for receiving the base portion or plate 24 of the flag 11 and this plate has recesses or apertures 25 for receiving screws 26 that extend through the upper extremity of the rod 14 for clamping the flag in place, the slots or apertures 25 providing for lateral adjustment of the flag on the rod. The flag 11 extends across the knives *a* and *b* shown by dotted lines in Fig. 6, and the flag is bent at *c* and *d* to correspond with the bevels of the parallel knives *a* and *b*. The bend C bears against the bevel of the knife *a* and thereby the middle portion of the flag is held off the cutting edges of the knives so that the flag will not be worn away by the knife edges in riding up and down thereover. The knife *b* can be adjusted back and forth to vary the width of the space between the knives for different sized slugs. The wiping device moves up and down with the elevator so that the flag will remove the shavings from the knives. It will be understood that the flag is disposed behind the knives and it is urged toward them by the spring 19 operating on the pivoted standard 5 tending to tilt the latter forwardly, and by this means, the bent portion C of the flag will be maintained in contact with the bevel of the knife *a*.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while we have described the principle of operation of the invention, together with the device which we now consider to be the best embodiment thereof, we desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what we claim is:—

1. In a knife wiping device for linotype machines, a supporting member adapted to be secured to the elevator of the machine, a standard mounted on the member, a flag-carrying rod on the standard, and elastic means operating on the standard to maintain the flag in coöperative relation with the slug-trimming knives of the machine.

2. In a knife-wiping device for linotype

machines, a supporting standard, a rod slidably mounted thereon, a flag on the rod adapted to remove the shavings from the slug-trimming knives, and a spring operating on the standard to hold the flag in operative relation to the knives.

3. In a knife-wiping device for a linotype machine, the combination of a pivotally-mounted standard, a rod mounted on the standard and having a flag on its extremity, a buffer against which the rod bears, and a spring acting on the standard for maintaining the flag tensioned against the slug-trimming knives of the linotype machine.

4. In a knife-wiping device for a linotype machine, the combination of a supporting bracket adapted to be secured to the first elevator of the machine, a standard, an arm on the standard, a pivot for fulcruming the arm on the bracket, a spring acting on the arm for throwing the standard forwardly, a rod carried by the standard, and a knife-wiping flag on the rod.

5. In a knife-wiping device for a linotype machine, the combination of a pivotally-mounted member, a rod mounted to move longitudinally thereon, a spring on which the rod bears for yieldingly holding the latter in position, an adjustable flag on the rod, said rod having its intermediate portion looped to impart elasticity thereto, and an element acting on the said member for holding the flag under tension with respect to the slug-trimming knives of the machine.

6. In a knife-wiping device for a linotype machine, the combination of a member, a casing secured thereto and forming therewith a guide passage, a rod in the passage and projecting out of one end thereof, a flag on the projecting extremity of the rod, and a spring bearing against the rod to form a buffer therefor.

7. In a knife-wiping device for a linotype machine, the combination of a bracket formed with a supporting arm, an L-shaped member having one limb pivotally mounted on the arm and the other limb extending upwardly, a spring acting on the first-mentioned limb to tilt the upwardly-extending limb forwardly, a flag-supporting rod, means for slidably mounting the rod on the upwardly-extending limb of the said member, and a spring arranged to move the rod to normal position.

In testimony whereof we affix our signatures in presence of two witnesses.

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Witnesses:

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