(No Model.)

J. R. CUMMINGS.

STEREOTYPE CASTING APPARATUS.

No. 457,897. Patented Aug. 18, 1891.

Fig. 2.

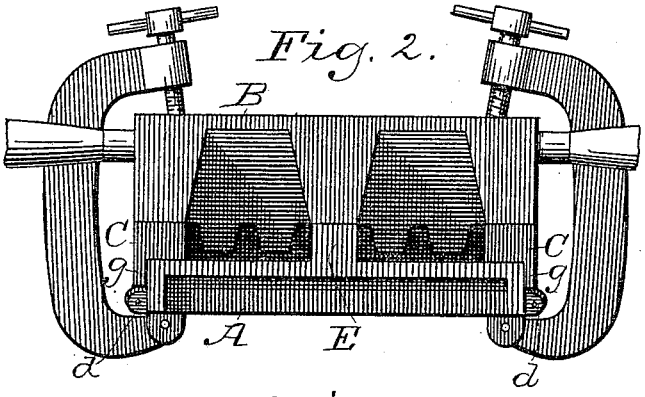


Fig. 3.

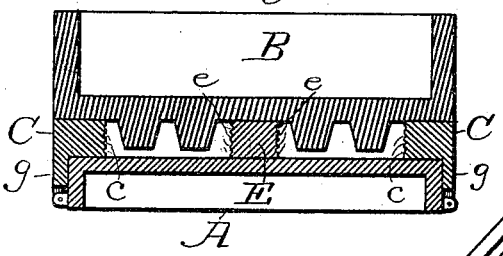
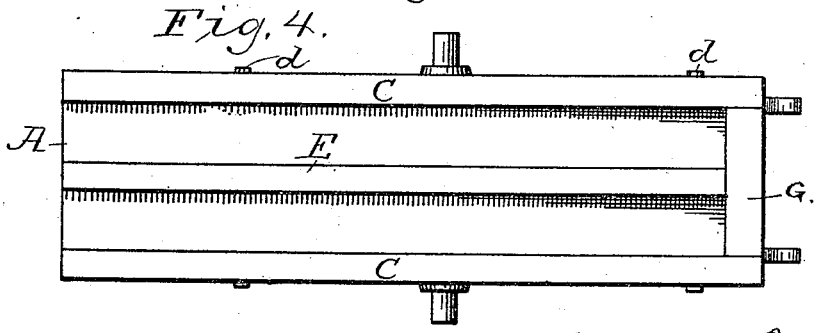


Fig. 1.

Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN RAYMOND CUMMINGS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE AMERICAN PRESS ASSOCIATION, OF SAME PLACE.

STEREOTYPE-CASTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 457,897, dated August 18, 1891.

Application filed July 7, 1890. Serial No. 358,008. (No model.)

To all whom it may concern:

Be it known that I, JOHN RAYMOND CUMMINGS, of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Stereotype-Casting Apparatus, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Heretofore considerable difficulty has been experienced by stereotypers when casting bases for mounting stereotype-plates or when casting type-high newspaper-matter because of the liability of the castings adhering to the cover before the metal has cooled sufficiently to solidify and contract. This difficulty does not arise except when it is desired to cast such bases or type-high plates rapidly, as required by the business of those parties and concerns who make it a business of providing stereotype newspaper-matter to newspaper publishers, because if allowed time to cool sufficiently the cover can be easily raised and they can be removed easily. Every minute of time is then valuable, and in order to economize time and labor it is necessary to remove the stereotype-casting while yet hot.

The object of my invention is to enable the stereotyper to remove the bases or type-high plates rapidly and while yet hot, and without the possibility of their adhering to the cover when the latter is raised off of the mold by reason of their frictional contact with the gage-bars after casting, substantially as hereinafter described, and as illustrated in the drawings, in which—

Figure 1 is a perspective view of the box and cover of my invention. Fig. 2 is an end of the casting apparatus alone. Fig. 3 is a transverse vertical section therethrough, and Fig. 4 is a plan view of the box of my improved casting apparatus with the cover removed.

Referring to the drawings, A represents the box of my improved apparatus, and B represents the cover thereof.

C C represents the longitudinal side gages, such as are used in the ordinary stereotype-casting apparatus for the purpose of determining the height of the casting, and which are placed parallel and in alignment with the side edges of the box. Unlike the gages of the old apparatus, however, the gages C in my apparatus are hinged to the sides of the box, and for the convenience of doing this I widen the gage so that it overhangs the sides of the box, and has a downwardly-projecting flange *g* from said overhanging portion, which bears against the side edges of the box when said gages are in proper position. The lower edge of this flange is connected by suitable hinges *d* to the lower edge of the side of the box, as shown. Thus when these gages are swung off from the base, away from the casting, there is no friction between the casting and said gages any more than if the gages were moved laterally in a straight line away from the same. However, it is not beyond the scope of my invention for these gages to be moved laterally, only they must be connected to the box in some manner, so that they cannot be disconnected therefrom when manipulated by a workman, and so that they can be moved back in place instanter and without the necessity of readjusting them for the purpose of getting them parallel with the sides of the box and to obtain the necessary width of casting. The inner longitudinal sides of these gages are provided with a series of longitudinal grooves *c*.

The cover is given the usual conformation necessary to produce the under part of the casting, and differs in no material respect to that of the old casting apparatus. It is hinged, similar to the cover of the old apparatus, to the rear end of the box, and when closed over said box to make a complete mold is clamped thereto by the goose-necked clamps *e* in the same manner.

The box is provided with trunnions projecting from its sides, which are journaled in the open bearings in the smaller vertical arms of the usual supporting-frame. Both the box and cover of my apparatus are constructed and operated in substantially the same manner as the old casting apparatus, with this difference, however: after the castings have been made, the cover unclamped and lifted from the box, while the latter is in a horizontal position, the gages, instead of being permitted to remain in their original position, are swung outward. The castings are

then removed in the ordinary manner. After the castings are removed the gages are swung back to their normal position, the cover closed and clamped to the box, and the whole apparatus tilted to a vertical position for another casting to be made, which is afterward removed, as described.

When it is desired to cast independent bases of a width and length corresponding to that of a column of newspaper matter, I make the box of a width sufficient to correspond to the aggregate width of two bases, plus the width of the gages C, plus the width of a longitudinal central gage-block E, and I provide it with the usual end gage G, (which I also use when said gage-block is omitted.) I prefer to make the gage-block E, referred to, integrant with the box, although this is not necessary. It is placed parallel with and between the gage-bars C, is of the same height thereof, and is of such width that the distance between its sides and the adjacent sides of the gage-bars C corresponds to that of the casting I desire to make. The sides of this block E are also provided with a series of grooves *e e*, similar to the gages C. Thus the castings produced are provided with longitudinal serrations on their sides, which prevent a careless workman from removing the castings until the gage-bars are swung back therefrom, insure the release of the cored surface of the cover, and prevent the casting being bent. The serrations on the casting, however, are easily removed in the process of trimming the sides of the castings, to which they are always subjected.

I do not wish to be confined to the use of the longitudinal grooves in the sides of the gage-block and side gage-bars, as it is evident they can be dispensed with.

By my improved construction of gages and gage-bars it is impossible for the castings to adhere to the mold. As soon as the gages C are swung outward the castings can be removed rapidly without waiting for them to cool, and this can be done, moreover, without straining the castings or bending or otherwise injuring same.

What I claim as new is—

1. In a stereotyper's casting apparatus, a box A, having an end gage G, and side gage-bars hinged to said box in such manner as to swing laterally away from the casting when removed, and the entire inner faces, which are in contact with said castings, being provided with grooves, in combination with a cover B, as set forth.

2. In a stereotyper's casting apparatus, a box A, an end gage G, and side gage-bars C, hinged to the sides of said box in such manner as to swing laterally outward away from the casting when it is removed, in combination with a cover B, as set forth.

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