

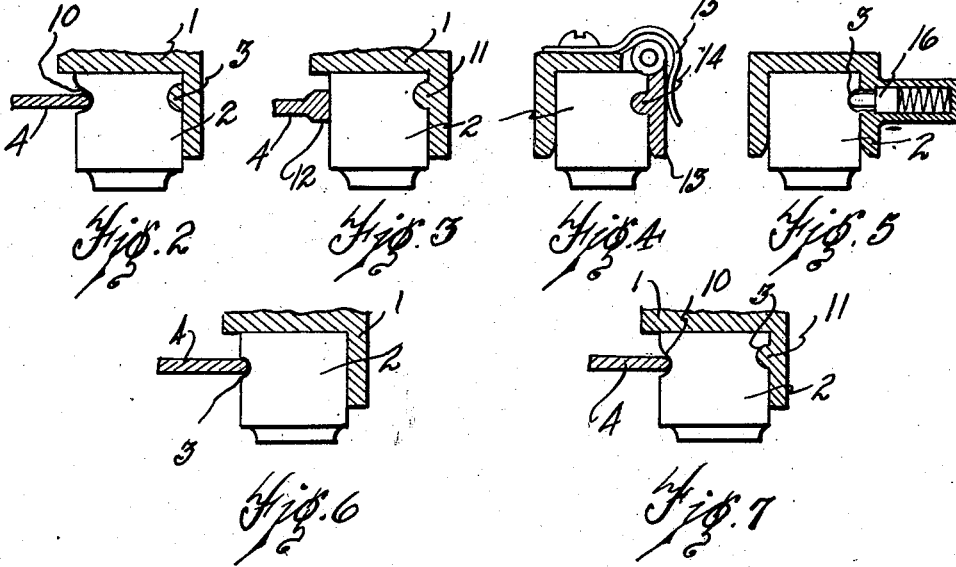
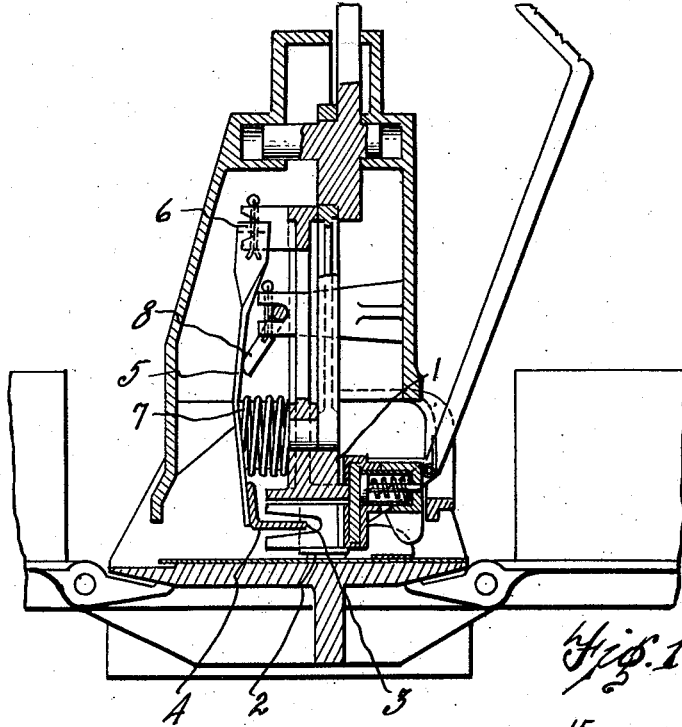
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H. W. LAMB ET AL

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COMBINED TYPE AND HOLDER FOR PRINTING MACHINES

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INVENTOR.  
HERERT W. LAMB  
FRANK S. DUSHELTREE  
BY  
*Charles E. Young*  
ATTORNEY.

# UNITED STATES PATENT OFFICE

HERBERT W. LAMB AND FRANK S. OUGHELTRIE, OF ADRIAN, MICHIGAN, ASSIGNORS  
TO LINE-O-SCRIBE, INC., OF ADRIAN, MICHIGAN, A CORPORATION OF MICHIGAN

## COMBINED TYPE AND HOLDER FOR PRINTING MACHINES

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This invention relates to combined type and holder for printing machines and the object of the invention is to provide type for a printing machine such as shown in our co-pending application Serial No. 149,335, filed Nov. 19, 1926 and entitled Printing machine. In this machine the type is mounted in a holder and is held in place in the holder by a tension device which is released by swinging the machine to bring the type to the inverted position. By thus releasing the type, the type may be readily changed in the holder and upon again turning the machine to printing position the type is again locked in the holder.

The principal object of this invention is to provide a means for firmly securing the type in the holder so that it cannot become displaced during the printing operation.

These objects and the several novel features of the invention are hereinafter more fully described and claimed and the preferred form of construction by which these objects are attained is shown in the accompanying drawings in which—

Fig. 1 is a sectional view through a display card printing machine with which the type and holder is used.

Figs. 2 to 7 show different forms of type and the method of securing the different forms in the holder.

The machine shown in Fig. 1 is for printing display cards and is fully described in our co-pending application Serial No. 149,335, filed Nov. 19, 1926, entitled Printing machine and initially assigned to Division 17. In this machine a way or holder 1 is provided for the type 2 and this type is provided with a groove 3 shown in Fig. 6 which is common to all the type and in which a member 4 engages to hold the type in the way. The member 4 is attached to an arm 5 which is pivoted at 6 in the machine and a contractable coiled spring 7 is provided which draws the arm 5 to the right of Fig. 1 thus holding the member 4 in engagement in the grooves of the type. An arm 8 is provided in the machine and the machine is adapted to be turned on its axis to bring the type to inverted position so it is readily accessible to the printer. This ma-

chine as described in our co-pending application is arranged so that as the machine is turned on its axis the arm 8 moves the arm 5 outwardly against the tension of the spring 7 so that the member 4 is disengaged from the type as the type is moved to the inverted position. This allows the type to be readily removed or replaced and as the machine is again turned to the printing position the arm 8 allows the arm 5 to be drawn to the position shown in Fig. 1 by the spring 7 with the member 4 again engaging in the grooves in the type thus bindingly securing the type in the holder or way. The particular object of this invention is to provide a means for firmly securing the type in the holder or way and this may be accomplished in several different manners as shown in Figs. 2 to 7. Most type as shown in Fig. 2 is provided with a groove 3 to aid the type setter in setting the type right side up in the holder. This groove 3 may be utilized to allow the member 4 to engage therein as shown in Fig. 6, to hold the type firmly in the holder. In the form shown in Fig. 2 a groove 10 is provided in the opposite side of the type and is provided with a sloping wall against which the member 4 engages and this member 4 by engaging the angular wall tends to push the type up into the top of the holder. In Fig. 3 the holder is provided with a rib 11 and the groove 3 in each type is engaged over this rib. In this form the member 4 is provided with an enlarged end 12 adapted to engage the side of the type to force the type to the right of Fig. 2 thus holding the groove 3 in engagement over the rib 11. In the form shown in Fig. 4 a three sided holder is provided for the type having a hinged side 13 provided with a rib 14 for engaging in the groove in the type and this side 13 and rib 14 are held in engagement with the type by means of a spring 15. In this form the hinged side 13 may be easily swung out to allow replacement of the type. In Fig. 5 another three sided holder is provided for the type having a spring pressed pin 16 for engaging in the groove 3 of each type. In the form shown in Fig. 7 the construction is the same as that shown in Fig. 2 with the exception that the holder is provided with a rib

11 fitting in the groove 3 of the type and the spring pressed member 4 holds the type in position with the groove 3 fitting over the rib 11. In all the forms shown the principle of providing a spring pressed member for securing the type in the holder is the same and provision is made whereby the type may be readily rearranged and replaced for printing different words.

From the foregoing description it becomes evident that the device is very simple and efficient in operation, will not easily get out of order and provides a device which accomplishes the objects described.

Having thus fully described my invention, its utility and mode of operation, what we claim and desire to secure by Letters Patent of the United States is—

1. In a printing machine, the combination with a type holder substantially L shaped in cross section providing a support for the base and one side of the type, the side of the holder engaged by the side of the type being provided with a longitudinal rib, a series of type each having a groove fitting the rib, said type further having a groove on the opposite side, and a yieldable retainer member pivoted to swing toward or from the type on the exposed side and adapted to engage the said second groove.

2. In a printing machine, the combination with a type holder having the form in cross section of an inverted L in which the type may be mounted with the base of the type engaging the horizontal portion of the holder and a side of the type engaging the vertical portion of the holder, a series of type therein, and a member pivoted to swing toward or from the type on the exposed side, and spring means causing the said member to engage the type under pressure to retain the same in the holder.

3. In a printing machine, the combination with a type holder substantially L shaped in cross section providing a type receiving recess having an open side for introduction of the type and supporting the base and one side of the type, a series of type each being provided with a groove in the exposed side and mounted in the holder with the grooves in longitudinal alignment, and a spring pressed bar movable toward or from the type on the exposed side and to engage the type grooves under pressure.

4. In a printing machine, the combination with a type holder L shaped in cross section providing an open side for introduction of type, of a series of type adapted to be mounted therein, the holder providing a support for the base and one side of the type, the side of the holder engaging the type being formed with a longitudinal rib and the type each being provided with a groove engaging the rib and spring pressed means pivoted to

swing toward or from the type on the exposed side and to engage the same under pressure.

5. In a printing machine, the combination with a type holder L shaped in cross section adapted to support the base and one side of type and exposing the printing face and opposite side thereof, of a series of type each having a groove, the grooves being in alignment in a set line of the type, a pivoted member having a part of a length approximately equal to that of the holder and adapted to engage the aligned grooves of the type, and a spring causing the member to engage the grooves and maintain the type seated in the holder.

6. In a printing machine, the combination with a type holder L shaped in cross section adapted to support the base and one side of type exposing the printing face and the opposite side thereof, of a series of type therein, a pivoted member having a length approximately equal to that of the holder and movable toward and from the exposed side of the type opening the holder when moved away therefrom permitting the setting of the type from the side of the holder, and spring means for holding the member in engagement with the exposed side of the said type to maintain the same seated in the holder.

7. In a printing machine, the combination with a type holder of a shape in cross section to support the base and side of the type and exposing the opposite side of the type when set therein, a spring-pressed member pivoted to swing toward and from the exposed side of the type permitting the type to be set in the holder from the open side when swung away therefrom and engaging the type under pressure when moved toward the same.

In testimony whereof we sign this specification.

HERBERT W. LAMB.  
FRANK S. OUGHELTRIE.

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