

(No Model.)

L. K. JOHNSON.
TYPE HOLDER AND SEPARATOR.

No. 277,740.

Patented May 15, 1883.

Figure 1.

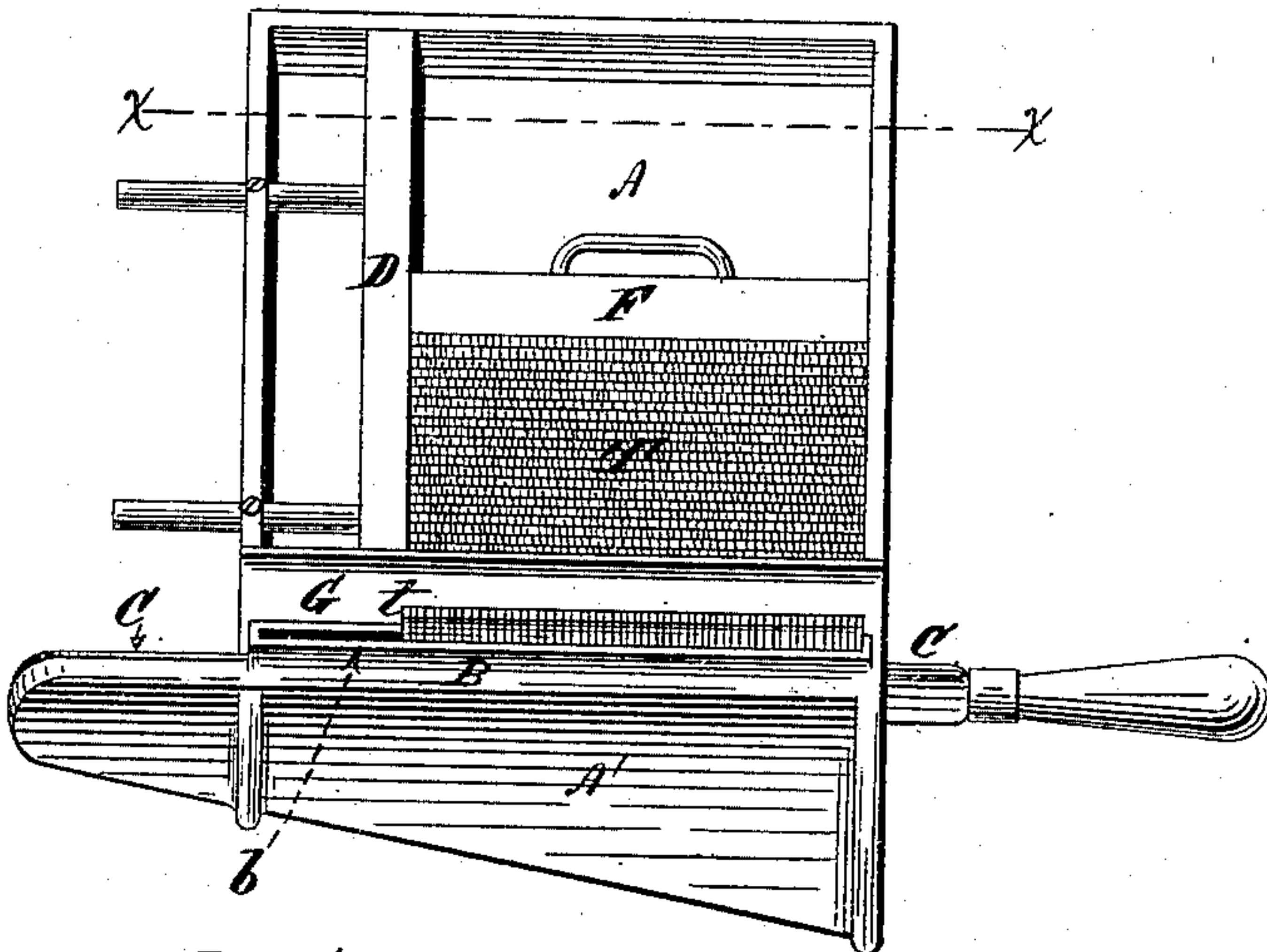


Figure 4.

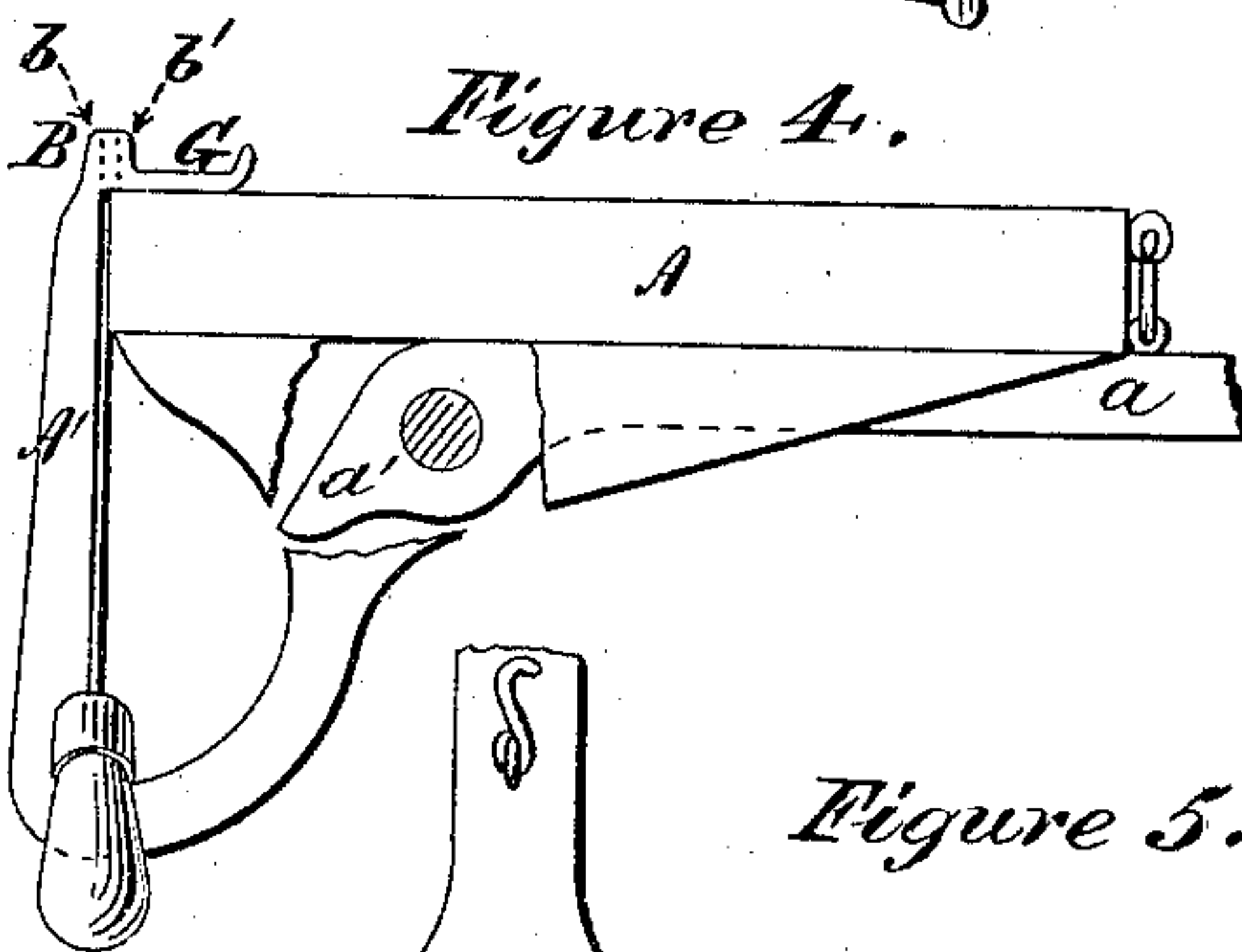


Figure 5.

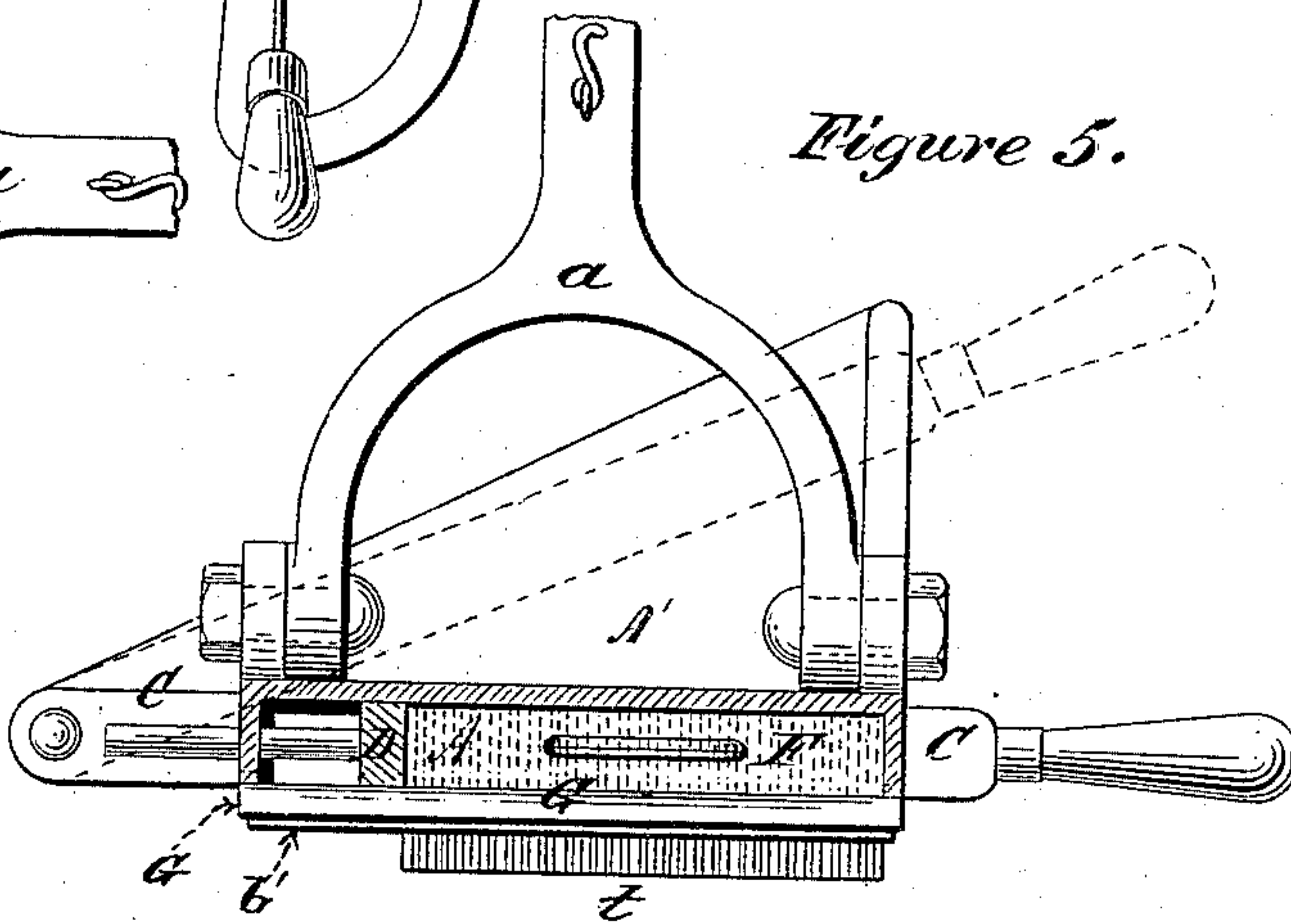
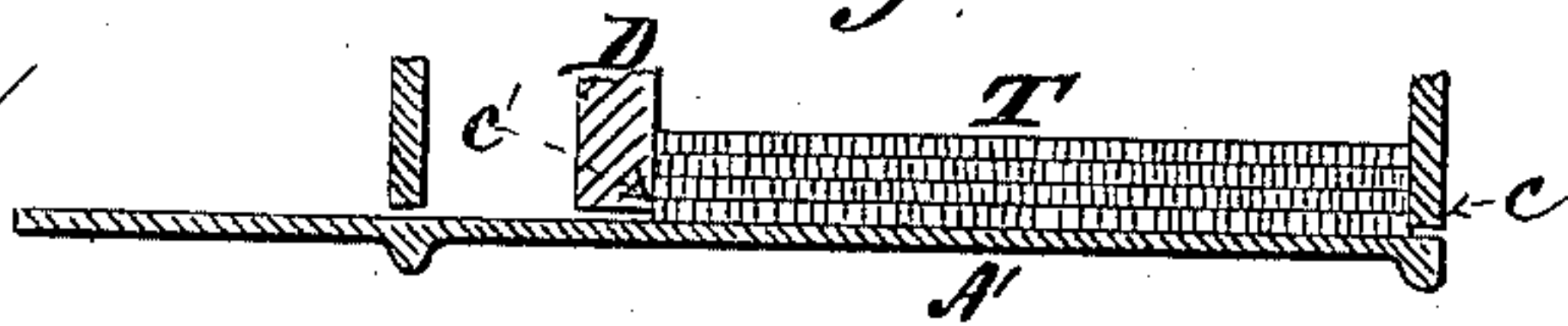


Figure 6.



Witnesses:
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Louis H. Johnson,
By his attorney,
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UNITED STATES PATENT OFFICE.

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TYPE HOLDER AND SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 277,740, dated May 15, 1883.

Application filed February 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, LOUIS K. JOHNSON, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented a new and useful Type Holder and Separator, of which the following is a specification.

This invention relates to devices for holding a page or column of type that has been used and presenting the same to the operator for redistribution by hand. Heretofore, so far as I am aware, these devices have consisted of a simple galley or box inclined at a suitable angle and furnishing support for a column of type placed therein in such manner that the types could only be removed from the top of said column. The mode of grasping and removing the types was thus rendered inconvenient and difficult, since, as the face of the uppermost line of type occupied the same plane as that of the rest of the column, the types required had to be drawn forward by pressure applied above by one or more fingers before they could be grasped between the fingers and thumb. This operation was retarded and rendered still more difficult from the fact that all type that has been used is more or less "gummed" or stuck together, even after being subjected to the ordinary process of washing, thus necessitating the application of considerable force in order to separate a portion of the upper line from the rest and from the line underneath. For the same reason the portion of the line removed had always to be "broken" or separated by and between the thumb and fingers before the individual types could be dropped into their respective compartments or receivers.

It is the object of my invention to avoid these objections and to facilitate hand distribution by presenting each line of type as required in a convenient position to be grasped at once between the thumb and fingers, and with the line thoroughly broken or loosened, so that its component parts may be readily disposed of.

My invention consists, first, in a galley or type-holding compartment formed at the bottom with a type-column-supporting shoulder or floor of sufficient width to project in front of the position of the column of type the requisite distance to support a line of type inde-

pendently, and having its rear and side walls slotted or otherwise formed immediately above said shoulder or floor to receive and allow the advance and retraction of a separator or "breaker" pivoted at one extremity in such relation to the type-holder that in its forward movement it will impinge against the individual types composing the lowest line of the column, separately and consecutively, so that they will be detached or loosened from each other by the time the line has been pushed forward into position to be grasped by hand; secondly, in making the separator-blade, so pivoted, and the transverse receiving-slot in the lower side walls of the holder of less width than the width of the narrowest type to be used, so that the lowest line in a column will always be held against any tendency to lateral displacement, thereby aiding and insuring the action of the separator-blade in "breaking" the line during the operation of cutting it off from its column; thirdly, in an adjustable side wall or partition for sustaining columns of type of variable width in the holder against lateral displacement ending above the type-supporting shoulder or floor a distance equal to the thickness of the type-blade of the separator and less than the width of the smallest type to be used, so as to allow the separator to pass freely underneath, while at the same time it may be made to bear against that side of the lowest line of type.

In the accompanying drawings, Figure 1 is a front elevation of my improved device; Fig. 2, a side elevation; Fig. 3, a plan; Fig. 4, a side elevation, showing the galley secured in a horizontal position; Fig. 5, a projection on the plane of the type-supporting shoulder A' , partly in section; Fig. 6, a section through the type-supporting floor or shoulder and the lower side walls of the galley on line $y y$, Fig. 5.

The type holder or galley A is pivoted upon a bracket or support, a , in such manner that it may be turned back and secured in a horizontal position, as indicated in Fig. 4, for greater convenience in filling and adjusting. When arranged for use it is preferably made to assume an inclined position, as shown in Fig. 2, at least sufficient to cause the type to rest steadily in the holder by its own gravity. The holder is sustained in this position by inclined rests or stops $a' a'$, projecting from the

supporting-bracket *a*, or by other suitable means.

The column of type *T* is supported within the holder *A* upon the floor or supporting-shoulder *A'*. This latter projects forward beyond the front edges of the holder *A* a sufficient distance to furnish a support or rest for a line of type beyond and in front of the base of the column of type contained in the holder. This projection *b* (which forms the lower lip of the line-holder *B*) is equal, say, to about five-eighths or seven-tenths of "type-high," so as to leave the front of the line of type *t*, when in position, exposed sufficiently to be readily grasped between the thumb and fingers.

In order to sever the lowest line of the column of type and bring it into its independent position between the lips of the line-holder *B*, I pivot one end of a separator and line-breaker, *C*, (which is simply a straight-edge or blade) to the floor or supporting-shoulder *A'* in such manner that when it is at the end of its forward stroke its front edge will coincide with the face of the column of type contained in the holder, as indicated in Figs. 1, 2, 3, and 5. As the separator *C* recedes during its back stroke the column of type descends by its own gravity, so as to bring its lowest line against the floor or supporting-shoulder *A'* into position to be in turn pushed forward into the line-holder *B* by the next forward stroke of the separator.

In order to detach the types in the line one from the other, or, technically, to "break" the line, I pivot the breaker or separator *C* to the floor or supporting-shoulder *A'* at a point beyond and in advance of the position occupied by the rear of the column of type in the holder *A*, as indicated in Figs. 2 and 5, so that in its forward movement the front edge of the separator will first encounter and start forward the first type on the extremity of the lowest line in the column next the pivot, and then the next type in said lowest line, and so on in succession until all the types in the said line have been started and pushed forward into the line-holder *B*, where they are again brought into line with relation to each other by the completion of the forward stroke of the separator *C*, as before indicated. By thus bringing the edge of the breaker *C* into contact with each type independently and successively I am enabled to overcome any adhesive tendency between the types arising from "gumming" or imperfect cleaning, and I accomplish this without any additional labor or loss of time by and during the simple act of separating the line from the column. In order to facilitate this result and render the independent movement or start of each type certain, I confine the extremities of the lowest line between the vertical shoulders *c c'*, as illustrated in Fig. 6, so that all tendency to lateral displacement is counteracted and the types are compelled to preserve their alignment in moving forward. It is thus obvious that each type must necessarily be started forward by the pusher *C* before the latter can

come in contact with the next succeeding type. I accomplish this lateral support for the lowest line by making the pusher *C* and the corresponding transverse slots in the walls of the holder of less width than that of the smallest type to be used, as indicated in Figs. 2 and 6. By making the slot in the rear wall of the holder *A* of also the same width I support the said last line against displacement in that direction.

The breaker and separator *C* may be formed with a handle, as shown, and operated by hand; or it may be provided with a retractile spring and operated by a treadle, if desired.

The line-holder *B* consists of the projection *b*, of the supporting-floor *A'*, forming the lower lip, and of the upper lip or flange, *b'*, which holds the line against vertical displacement. A guiding and retaining plate, *G*, is secured to the front of the holder immediately above the line-holder *B*, and projects upward a sufficient distance to retain the lower portion of the column and guide it accurately to position upon the supporting-shoulder *A'*.

In order to compensate for variations in the width of the pages or columns of type to be distributed, I provide a movable side wall or partition, *D*, which may be adjusted to just touch the side of the column of type and sustain the latter in position without binding it or retarding its descent. The distance between the lower extremity of this movable side wall and the upper surface of the type-supporting floor *A'* is just sufficient to allow the passage of the separator *C* underneath, and is less than the width of the smallest type to be used, for the reasons before stated.

For the purpose of insuring the even descent of the upper portion of the column, I propose to employ a follower, *F*, of sufficient weight to carry the last line unbroken into position upon the supporting-floor.

What I claim is—

1. In combination with a type-column holder formed with a type-supporting shoulder, substantially in the manner and for the purpose described, a combined line-separator and line-breaker, pivoted to the device at a point beyond and in advance of the position occupied by the rear of the column of type in the holder in such manner that its front edge will impinge against and start forward each type in the lowest line of type in the column independently and successively during its forward stroke, substantially in the manner and for the purpose described.

2. A type-column holder formed with a type-supporting shoulder, substantially in the manner and for the purpose described, having transverse slots formed in its side walls of a width only sufficient to admit a pivoted line-separator of a thickness less than the width of the narrowest type to be used, in combination with such pivoted line-separator, substantially in the manner and for the purpose described.

3. In combination with a type-column-supporting case and pivoted line separator and

breaker substantially such as designated, a
movable side wall or partition for the purpose
of adjusting the holder to variations in the
widths of the columns of types, the lower ex-
5 tremity of said adjustable side wall ending a
distance above the type-supporting floor or
shoulder less than the width of the narrowest

type to be used, substantially in the manner
and for the purpose described.

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Witnesses:

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WM. A. POLLOCK.