

(No Model.)

L. K. JOHNSON.
TYPE AND SPACE HOLDER.

No. 254,019.

Patented Feb. 21, 1882.

Figure 1.

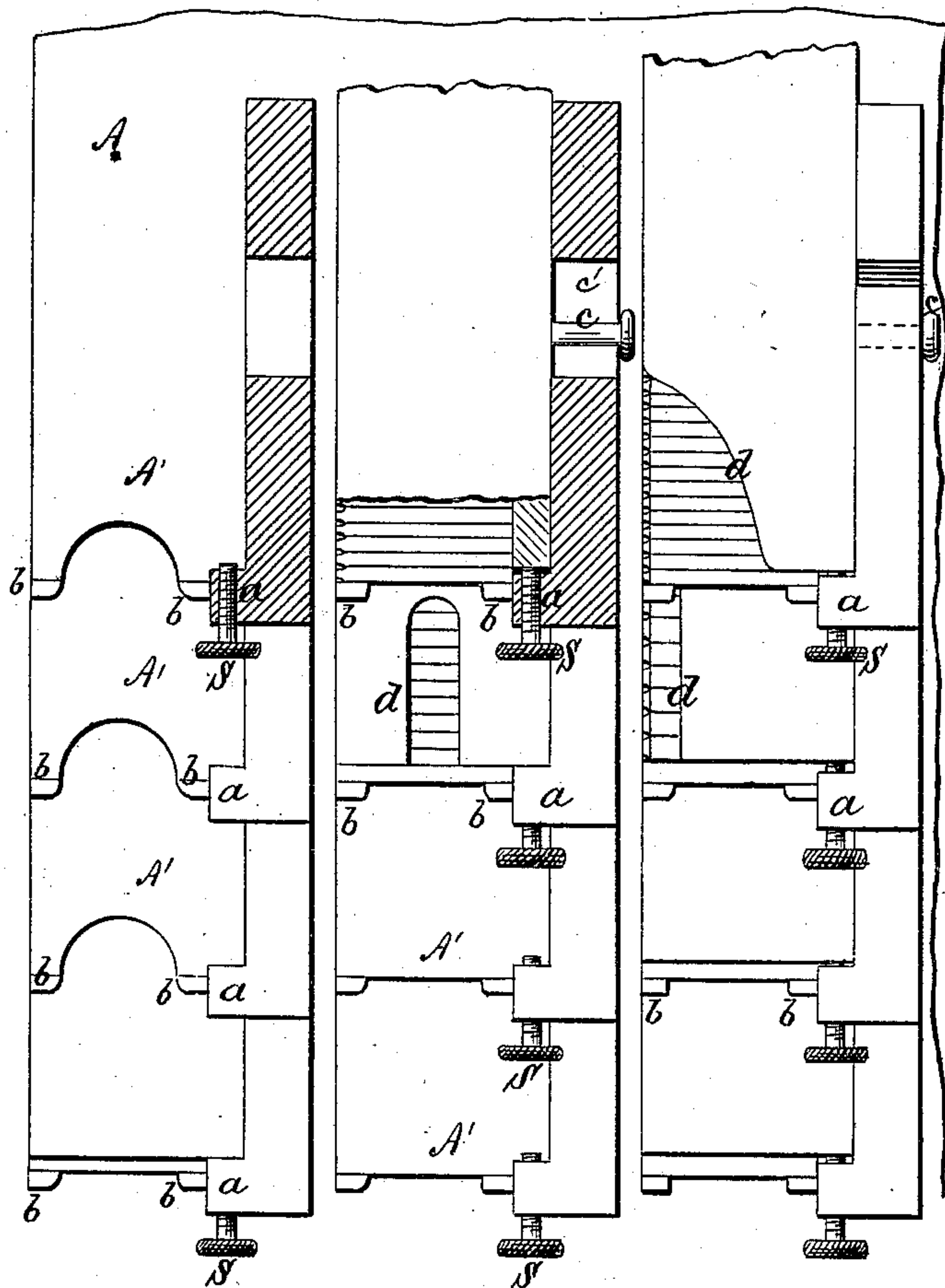


Figure 2.

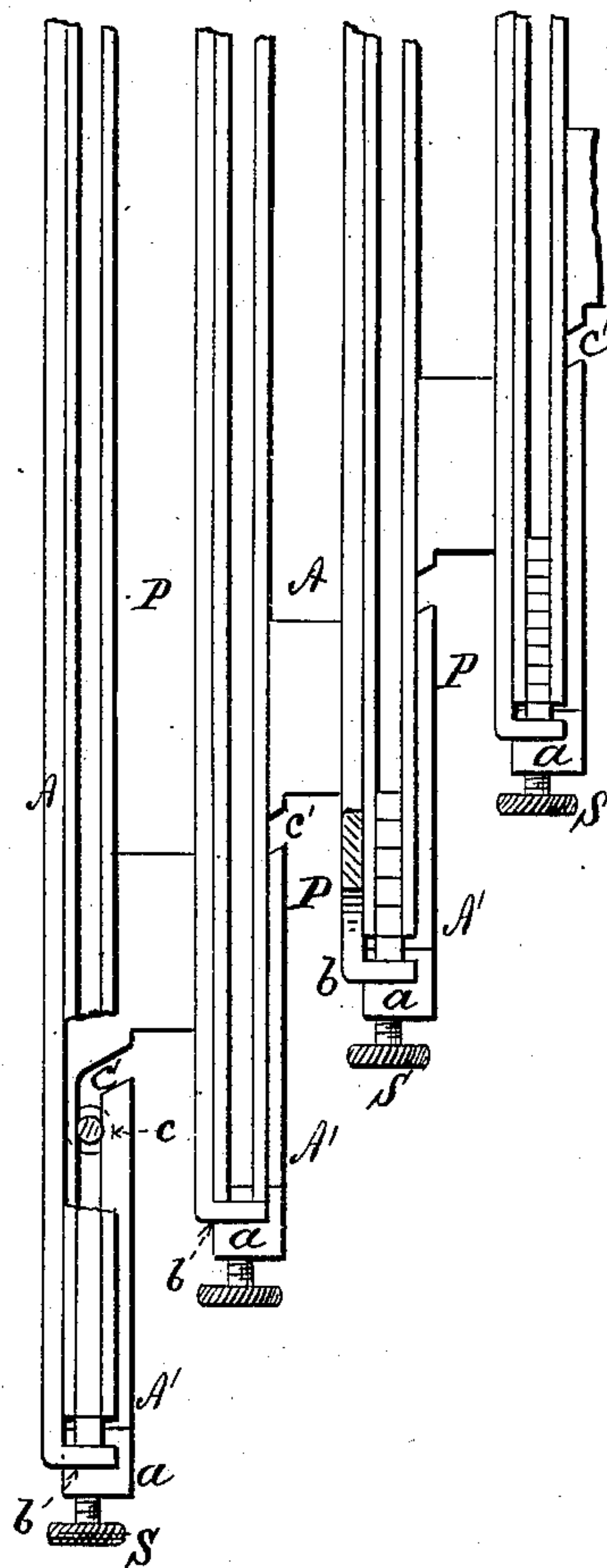


Fig. 3. Fig. 4.

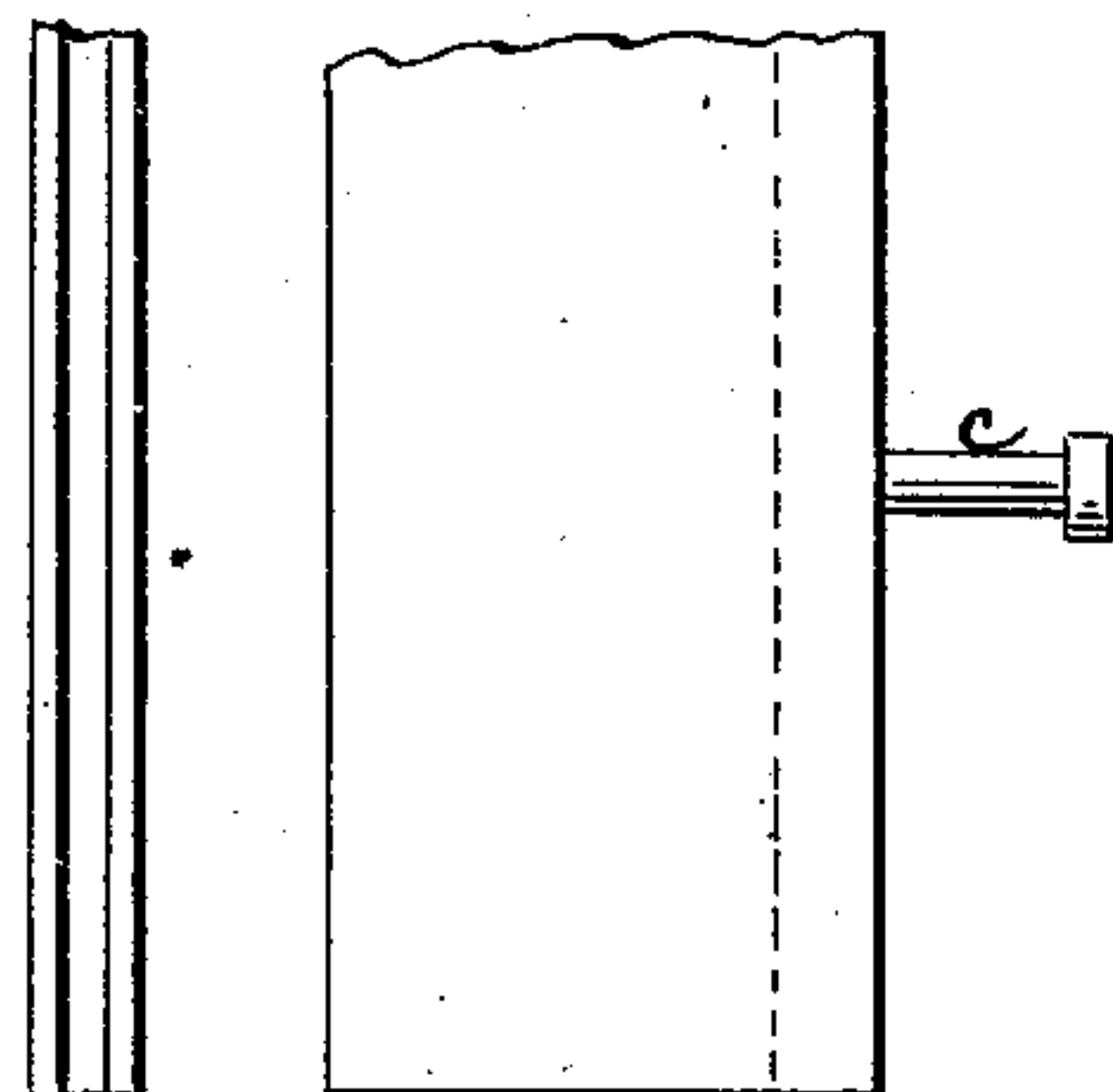
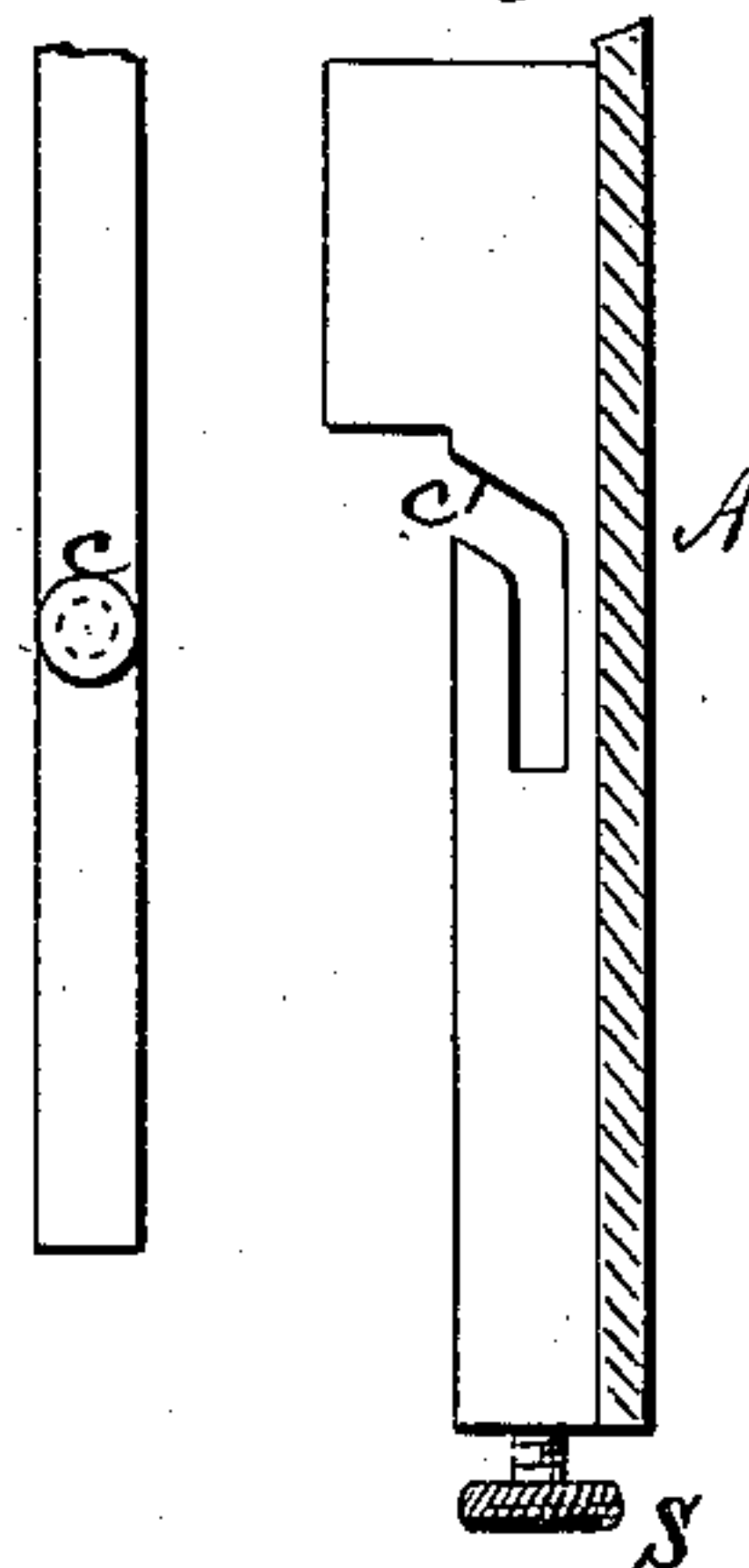


Fig. 5. Fig. 6.



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TYPE AND SPACE HOLDER.

SPECIFICATION forming part of Letters Patent No. 254,019, dated February 21, 1882.

Application filed June 11, 1881. (No model.)

To all whom it may concern:

Be it known that I, LOUIS K. JOHNSON, of the city, county, and State of New York, have invented certain new and useful Improvements in Type and Space Holders, of which the following is a specification.

My present invention is related to the type and space holder patented to me August 3, 1880, and numbered 230,784; and it consists, first, in so forming the case or frame which receives and supports the channels containing the distributed type that the ordinary forms of said channels, in which the walls extend uniformly the whole length, and which have no supporting-ledges for the columns of type, may be used without special adaptation by providing bearings or shoulders in the frame itself, upon which the lower ends of the columns of type rest and are supported independently, the frame being so formed as to allow access to the lower types of each column; secondly, in providing adjustable devices in the frame or case as bearings or rests for the lower ends of the channels, so that the lower extremities of the latter may be accurately adjusted and controlled in their positions with relation to the bearings or shoulders which support the columns of type, in such manner that one or more of the types in each column may be exposed and accessible between the lower ends of their respective channels and their supporting bearings or shoulders; thirdly, in supporting the lowest type of each column at or near both its extremities, the space between said points of support being unobstructed, so that the lowest type may be grasped between said points of support, thereby rendering the friction consequent to removal equal at both ends, and counteracting any tendency of the type to turn laterally during the operation of withdrawing it; fourthly, in constructing the recesses or seats in the frame for the reception and support of the type and containing-channels relatively one above another, and in such manner that the broad sides of said channels and consequently the lengths of the types contained therein will occupy positions opposite to and in front of the compositor, by which means I am enabled to expose the lowest extremities of a large number of columns of type in close proximity to each other, in such rela-

tion to the operator that the lowest types may be conveniently grasped and withdrawn in the position most appropriate for insertion in the stick; and, lastly, in constructing the frame or case with openings or spaces between the recesses or seats which adjoin each other vertically, sufficient to allow the type-containing channels to be inserted into their respective positions therein upward from the front of the case.

In the accompanying drawings, Figure 1 is a front elevation of a portion of my improved type and space case, portions being broken away and shown in section for the purpose of illustration. Fig. 2 is a similar view at right angles to Fig. 1. Fig. 3 is a side view of the lower end of one of the channels; Figs. 4 and 5, respectively, front and edge views of the same; and Fig. 6, a sectional view on plane of line *xx*, Fig. 1.

The frame-work A is formed with suitable sockets or recesses, A', for the reception of the channels, so arranged with relation to each other that the ends of the higher channels will be exposed slightly in advance of those immediately below, similar to the manner described in my former patent. A convenient method of accomplishing this is to form the frame of a series of plates or sections, each section containing a row of recesses or sockets, and being arranged and secured in position about an inch above and slightly in advance of the section next below. In the present case each recess or socket is formed not only with a shoulder or projection, *a*, for receiving and supporting the lower end of the channel, but is also provided with one or more shoulders, *b b*, for the reception and support of the column of type independently. A single supporting-shoulder for the type might be used of such form and length as to leave one extremity of the lower type accessible; but I prefer to support the type at or near both its extremities, and to leave a free and unobstructed space between said points of support, so that the thumb of the operator can pass freely between during the operation of securing and removing the type. The compositor is thus enabled to grasp the type at or near its middle, while the friction caused by the weight of the column of type above being uniform at both extremities

of the type, the latter may be withdrawn evenly, and will have no tendency to turn laterally between the thumb and finger of the operator.

This method of supporting the column of type is also specially adapted, although not absolutely essential, to my arrangement of the channels containing the columns of distributed type with their broad sides toward the operator. I find that by thus arranging the channels on the flat instead of edgewise, the type can be more conveniently and expeditiously grasped and withdrawn—in other words, that the necessary movements are rendered more natural—while the type is left between the finger and thumb in the most favorable position to be inserted in the stick. These features in the aggregate provide for and permit a material increase in the speed of composition, with a minimum expenditure of physical exertion.

In order to permit only the lowest type to be removed without disturbing those in the column above, I arrange the shoulder *a*, that supports the channel, a distance above the type-supporting shoulders *b b* equal to the thickness of the particular type it is designed to accommodate, thus separating the lower extremity of the channel and the upper sides of the type-supporting shoulders sufficiently to expose a single type for removal.

Where the types are all of a standard size, and it is desirable to use particular denominations in the same relative positions in the case permanently, this channel-supporting shoulder may be fixed in position; but owing to slight variations between the types of different manufactures, and also for the purpose of adapting the several sockets or recesses to accommodate channels containing different denominations when it is desirable to have their relative arrangement in the case variable according to the nature of the work to be done, I provide a set-screw, *S*, or other adjustable device as a bearing or rest for the end of the channel, so that the latter may be readily and accurately adjusted in position with relation to the type-supporting shoulders *b b*, according to the thickness of the type to be used.

A sufficient space, *P*, is left in the frame between the respective rows or series of recesses or seats to permit the channels to be inserted upward into position from below and in the front of the case, as will be seen in Fig. 2.

For the purpose of insuring the channels against lateral displacement, each is provided with a headed stud or projection, *c*, which engages with a slot, *c'*, formed in the frame for this purpose. This slot is made longitudinal in the same plane as that of the adjusting device *S*, to preserve the alignment of the channel under all circumstances.

By providing for the insertion and removal of the channels from the front side of the case, I enable the operator to replace an exhausted

channel without moving from his position before the same, thereby economizing time, which is the greatest desideratum in composing.

For the purpose of enabling the operator to observe the lower end of the column of type, and thereby have due notice of the lowering of the column before it is actually exhausted, I slot or otherwise form the lower end of the front wall of each channel similar to the manner indicated in Fig. 1, at *d*.

What I claim as my invention is—

1. In a type and space holder for the purpose indicated, one or more bearings or shoulders, *b b*, situated in the frame or case *A*, and affording support for the columns of type independent of the channels containing them, in combination with the said type-containing channels, substantially in the manner and for the purposes described.

2. In a type or space holder for the purpose indicated, the bearing-shoulders *a*, for supporting the channels independent of the columns of type contained therein, in combination with the type-supporting shoulders *b b*, substantially in the manner and for the purpose set forth.

3. In a type or space holder substantially such as described, the adjustable bearings or rests *S* for supporting the channels independent of the columns of type contained therein, in combination with said channels and with the type-supporting shoulders *b b*, for the purpose and substantially in the manner designated.

4. A type or space holder for the purpose indicated, provided with the type-supporting shoulders *b b*, constructed and arranged substantially as described, to support the lowest type of a column at or near its extremities, while the intervening space between said points of support is unobstructed, for the purposes and in the manner substantially as described.

5. A type and space holder substantially such as indicated, provided with sockets, recesses, or seats arranged relatively in advance of and one above another, substantially as described, and constructed to receive, support, and present the type-containing channels with their broad sides toward the operator, for the purpose and substantially in the manner set forth.

6. In a type and space holder for the purpose indicated, the combination of the channel-supporting recesses or seats arranged with relation to each other, substantially as described, so as to leave the spaces *P* between them for the purpose of allowing the channels to be inserted from the front of the case into their respective positions therein, substantially in the manner and for the purpose described.

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Witnesses:

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