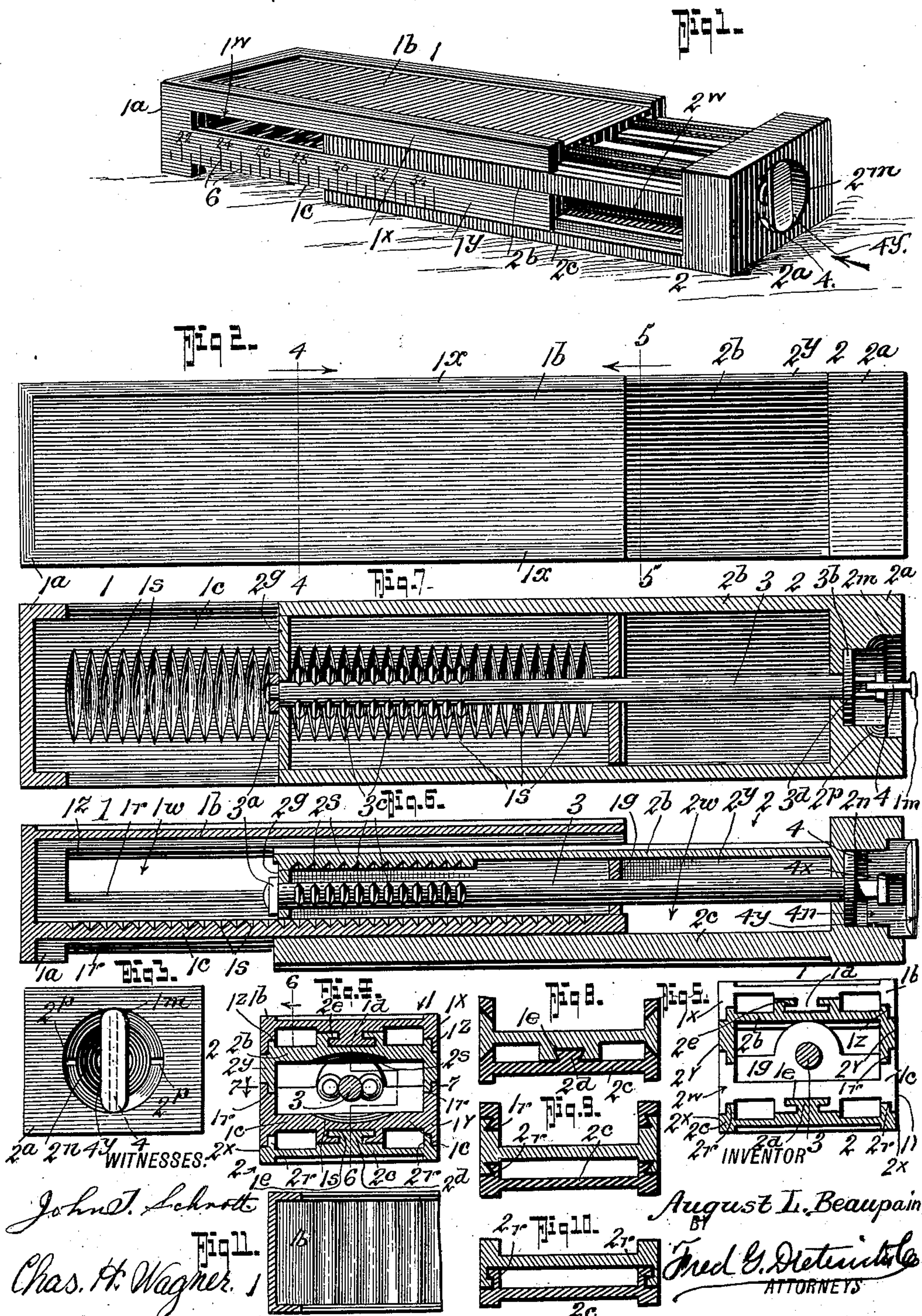


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 PRINTER'S EXTENSION FURNITURE.
 APPLICATION FILED JUNE 12, 1908.

917,237.

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UNITED STATES PATENT OFFICE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, AUGUST L. BEAUPAIN, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Printers' Extension Furniture, of which the following is a specification.

This invention relates to certain new and useful improvements in adjustable blanking out material or furniture for printers' use, and the invention comprises a pair of sliding members which carry a plainly marked scale, and means for securing and firmly locking the extensible or sliding sections in place at any desired position.

Another object of the invention is to provide a strong, simple and efficient adjustable metal furniture for printers' use and for other purposes to which it might be applied, to accomplish with one piece the result heretofore obtained by the combination of numerous small rigid pieces, and further to insure a perfectly flat and even working surface, which is not always obtainable with a number of small pieces.

A further object of my invention is to provide a scale, with plainly visible graduations that will enable the user to quickly and accurately adjust the device to any desired length and to render unnecessary the great assortment of stationary lengths now commonly used in practice, and thus reduce to a minimum the time consumed in obtaining any desired length, and economizing in room required for storage as well as eliminating the sorting and returning to their proper places of many pieces.

My invention also includes those novel details of construction, combination and arrangement of parts, all of which will be first described in detail, then be specifically pointed out in the appended claims, and illustrated in the accompanying drawings, in which:—

Figure 1, is a perspective view of my invention. Fig. 2, is a top plan view thereof. Fig. 3, is an end view looking in the direction of the arrow in Fig. 1. Fig. 4, is a cross section on the line 4—4 of Fig. 2. Fig. 5, is a similar view on the line 5—5 of Fig. 2. Fig. 6, is a central vertical longitudinal section on the line 6—6 of Fig. 4. Fig. 7, is a horizontal section on the line 7—7 of Fig. 4. Figs. 8, 9 and 10, are detail cross sections of modified forms of my invention. Fig. 11, is a detail

view of a slightly modified form of the corrugated member.

Referring now to the accompanying drawings, in which like letters and numerals of reference indicate like parts in all of the figures, 1 represents one of the slidable sections and 2 indicates the other slidable section.

The sections 1 and 2 each have a head 1^a—2^a respectively, and the section 1 is provided with an outer beam member 1^b and an intermediate beam member 1^c, while the section 2 is similarly provided with an outer beam 2^b and an inner beam 2^c to cooperate with those 1^b—1^c of the section 1.

The beams 1^b—1^c of the section 1 have side plates 1^x—1^y respectively whose adjacent edges are grooved as at 1^z to form a T-slot 1^w between the side plates 1^x—1^y to receive the side plates 2^y of the intermediate beams 2^c of the section 2, and the section 2 is correspondingly provided with a slot 2^w for a similar purpose to that of the slot 1^w. The side plates 2^y are of such shape in cross section as to conform to that of the T-slot 1^w and have a sliding movement therein. The intermediate beam 1^c of the section 1 also has its side plates 1^y provided with flanges to form grooves 1^r to cooperate with the flanges 2^r of the section 2.

The inner wall of the beam 1^b carries a tongue 1^d of T-shape in cross section to enter the T-groove 2^e of the beam 2^c, while the beam 2^b has a tongue 2^d, T-shaped in cross section to enter the T-groove 1^e on the outer wall of the beam 1^c, as clearly shown in Fig. 4, of the drawings.

From the foregoing it will be seen that the interengaged sections 1 and 2 are rigidly united (to interlock the same and thus prevent lateral movement of the sections) while at the same time they may be endwise extensible and in order that they may be locked in their extended positions the inner face of the beam 1^c of the section 1 is serrated as at 1^s while the corresponding face of the beam 2^b is likewise serrated as at 2^s to cooperate with a rod 3 that passes through the end head 2^a and through a bridge plate 2^s secured to the beam 2^b in any approved manner at the end farthest from the head 2. The rod 3 also passes through a bridge plate 1^s secured to the beam 1^c in any approved manner at its end farthest from the head 1.

A washer 3^a is riveted, or otherwise secured to the end of the rod 3 to prevent endwise

movement thereof in one direction, while a washer 3^b within the socket 2ⁿ of the head 2^a performs a like function to prevent the rod being endwise moved in an opposite direction.

5 The rod 3 has wings 3^c to cooperate with the serrations 1^s and 2^s to lock the sections 1 and 2 from endwise movement. It is to be noted that the wings 3^c are of substantially circular plate-like form eccentrically ar-
10 ranged with respect to the longitudinal axis of the rod 3, so that when the rod 3 is in one position the wings 3^c will be out of register with the serrations 1^s and 2^s respectively and when turned into another position such wings
15 3^c will be in engagement with the fixed serrations and lock the sections together.

The socket 2^m of the head 2^a, it is to be noted, is of two bores, the outer bore 2^m of which is of greater diameter than the inner
20 bore to receive the portion 1^m of greatest diameter of the key plate 4, whose portion 4ⁿ of lesser diameter enters the portion of lesser diameter of the socket 2ⁿ, see Fig. 6, of the drawings.

25 The rod 3 has its outer end slotted as at 3^d to receive the plate 4, as shown, and the socket 2^m is provided with a pair of radial slots 2^p to receive the portion 2^m of greatest diameter of the key plate 4 when the parts
30 are in their locking position. The key plate 4 is slotted as at 4^x so as to be endwise movable within the slot 3^d of the rod 3 and projected with its finger engaging bar 4^y within
35 the plane of the outer face of the end 2^a so as to lie flush therewith, as indicated in Fig. 1, of the drawings.

When my improved furniture is to be formed of sheet metal, the sheet metal portions may be corrugated, as indicated in Fig.
40 11, to give the same the required strength.

Instead of forming the grooves 1^w—2^w of T-shape in cross section they may be of V-shape in cross section, as shown in Fig. 8, of the drawings, and the cooperating end bars
45 of the opposite member may be formed of corresponding shape in cross section to cooperate therewith, as shown in Fig. 8.

Instead of making the grooves 1^w—2^w, as shown in Figs. 1, 2 and 8, they may be
50 formed of a cross sectional shape, such as is shown in Figs. 9 and 10 of the drawings, and the corresponding bars of the opposite member may be correspondingly formed to co-
55 operate therewith. Also the bars 1^d and grooves 2^e may be in cross section of a dovetail shape, as shown in Fig. 8, in lieu of the sectional formation shown in the form disclosed in Fig. 1 of the drawings, and I do not
60 desire to confine myself to any particular shape of groove 1^w—2^w, or 1^e—2^e, as various modifications of the cross sectional shape may be made while still maintaining the principal objects of construction of my im-
65 proved furniture.

One of the sections 1 or 2 (the section 1, is

shown in the drawings) is provided with a series of plainly visible graduations subdivided to correspond to the serrations 1^s—2^s and the scale 6 is divided to read from a pre-
70 determined amount up to the limit of its extension. For instance, if the furniture when in its closed position is 22 picas long the scale should read from 22 up, as shown on the drawings.

In the practical application of my inven-
75 tion, if a furniture 29½ picas long is desired, for example, the operator grasps the finger engaging member 4^y, pulls the winged plate 4 out to the position shown in Fig. 6, and turns the rod 3 until the wings 3^c thereof are
80 out of register with the serrations 2^s—1^s and extends the sections 1 and 2 until the 29½ division is in alinement with the edge of the opposite section, as shown in Fig. 1, of the drawings, after which the rod 3 is given a ¼
85 turn until the wings 3^c can enter the serrations 1^s—2^s and thus prevent endwise movement of the sections 1 and 3, thereby holding them at the proper position and in order to lock the rod 3 and thereby lock the sections
90 1 and 2, the operator then passes the winged plate 4 back into the socket 2ⁿ with the portion 1^m of the winged member in the slots 2^p of the head 2, as shown in Fig. 1 of the drawings. The furniture may be then used for
95 a space 29½ picas long.

While I have shown the scale graduated up to a certain number on the drawings, I desire it understood that the number of divisions on the scale will depend largely on the
100 length of the furniture used and the amount of extension permitted between the two sections of the device, and I do not desire to limit myself to the exact graduations, indicated on the drawings.

The interengaged side plates 1^x—1^y—2^x—2^y by virtue of their interengagement, prevent lateral movement of the sections 1 and 2 respectively, thus interlocking such sections 1
110 and 2, as it were, from lateral movement. The supplemental tongue and groove connection 1^d—2^d assists in more fully performing this function and also in rendering the device more rigid.

From the foregoing it will be seen that I
115 have provided a very simple and effective construction of printers' blanking out material, commonly known as furniture, wherein a rigid connection of the two extensible members is maintained and wherein means
120 are provided for securely locking the device when set to the desired length. It will be also seen that I have provided a scale in a position that can be easily and quickly read and that by forming the serrations 1^s and 2^s
125 and providing the rod 3 with the wing-like members 3^c they will serve to clean out any dirt that may accumulate in the serrations and thus insure absolute accuracy in obtaining the desired adjustment of the device.
130

In the practical manufacture of my device, as before stated, it may be made in any desired length and of any desired width and height and I do not confine myself to the exact proportions shown on the drawings, nor do I confine myself to the specific details shown in the drawings, as numerous changes in the details of construction and arrangement of parts may be made without departing from the spirit of the invention, or the scope of the appended claims.

What I claim is:—

1. A printer's furniture consisting of a pair of interengaged endwise extensible members, one of said members having a serrated portion, combined with means cooperating with said serrated portion and carried by the other member to interlock said members, said last named member comprising a rod having radial projections to enter said serrations.

2. A printer's furniture, comprising a pair of endwise extensible members having interlocked plates, and supplemental tongue and groove connections, together with means for interlocking said members to prevent such endwise extension thereof.

3. A printer's furniture consisting of a pair of interengaged endwise extensible members, each having serrated portions combined with means cooperating with said serrated portions to interlock the members, said last named means comprising a rod carried by one of said members and having radial projections to enter said serrations.

4. A printer's furniture consisting of a pair of interengaged endwise extensible members, each having serrated portions combined with means cooperating with said serrated portions to interlock the members, said last named means comprising a rod carried by one of said members, and having radial projections to enter said serrations, together with means for locking said rod from rotation.

5. A printer's furniture consisting of a pair of interengaged endwise extensible members, each having serrated portions combined with means cooperating with said serrated portions to interlock the members, said last named means comprising a rod carried by one of said members, and having radial projections to enter said serrations, together with means for locking said rod from rotation, said last named means comprising a key carried by said rod and adapted to enter grooves in one of said members to hold the rod from rotation.

6. A printer's furniture consisting of a pair of interengaged endwise extensible members, each having serrated portions combined with means cooperating with said serrated por-

tions to interlock the members, said last named means comprising a rod carried by one of said members, and having radial projections to enter said serrations, together with means for locking said rod from rotation, said last named means comprising a key carried by said rod, and endwise movable thereon, one of said members having a socket to receive said key when not extended to lock the rod from rotation, and when the key is extended to permit said rod to be rotated.

7. A printer's furniture comprising a pair of interengaged endwise slidable members, one of said members having serrated portions, a rotatable locking mechanism carried by the other member and having portions to cooperate with said serrated portions to lock the members together, and a scale carried by one of said members and graduated to correspond with said serrations of the serrated portions.

8. A printer's furniture comprising a pair of endwise extensible members having interengaged side plates and supplemental tongue and groove connections, together with means for holding said sections in their various positions, means for locking said holding means, said holding means comprising a rod having portions for engaging said extensible sections to hold them in their various positions, and said locking means comprising a key member carried by the rod and adapted to engage one of said members to hold the rod from rotation.

9. A printer's furniture comprising a pair of endwise extensible members having interengaged side plates and supplemental tongue and groove connections and means forming a part of said interengaged side plates for preventing lateral movement of said extensible members, together with means for holding said sections in their various positions.

10. A printer's furniture, comprising a pair of endwise extensible members having interengaged side plates and means to prevent lateral movement, thereof, supplemental tongue and groove connections between said members, means for holding said sections to their various positions, and means for locking said holding means.

11. A printer's furniture, comprising a pair of endwise extensible members having interengaged side plates, said interengagement preventing lateral movement thereof, together with supplemental tongue and groove connections between said members.

AUGUST LOUIS BEAUPAIN.

Witnesses:

H. E. SCHENCK,

A. A. BRANDON.