

No. 760,194.

PATENTED MAY 17, 1904.

E. GRAHAM.
TROUSERS PRESS.

APPLICATION FILED SEPT. 30, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

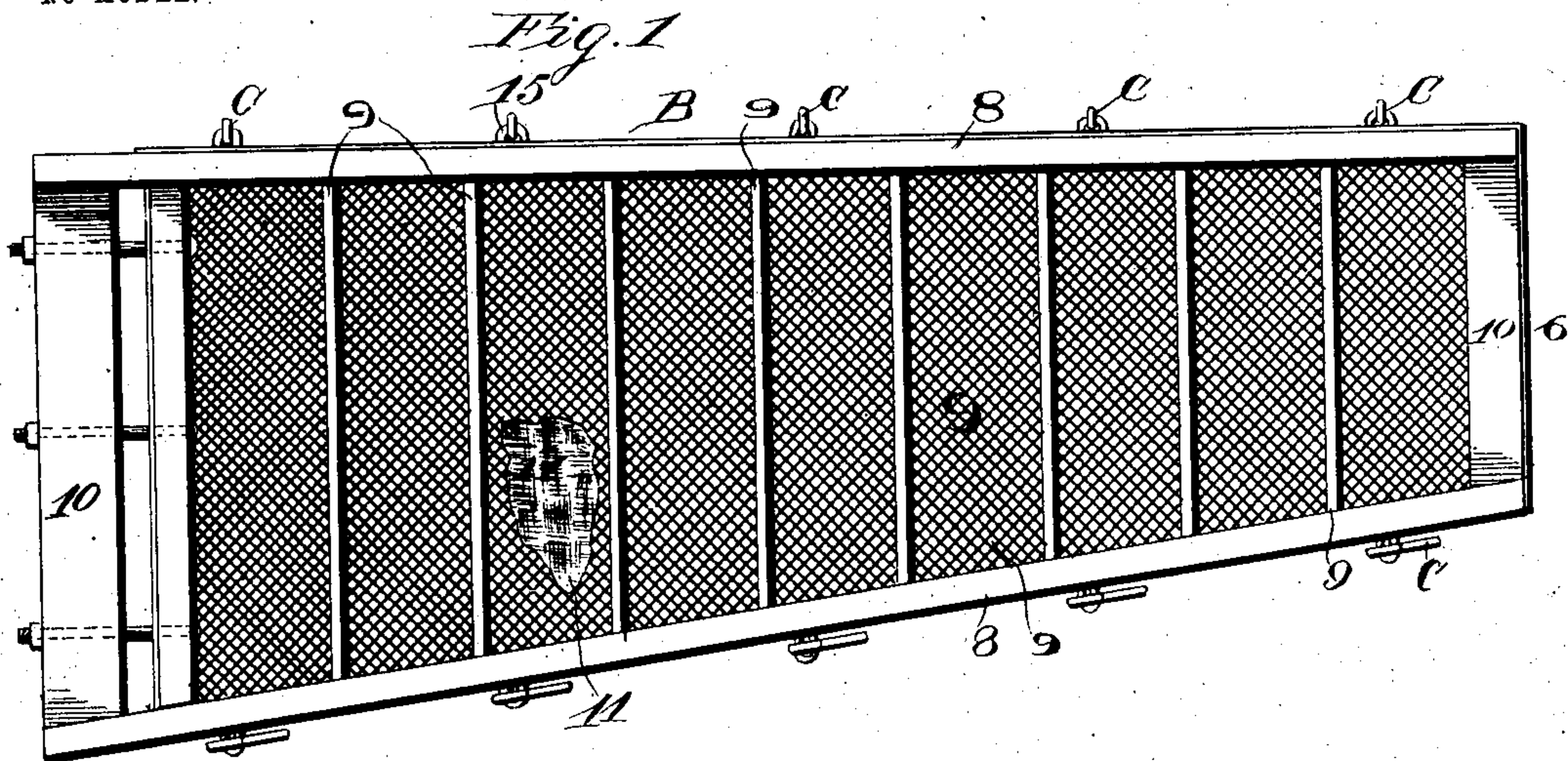


Fig. 2

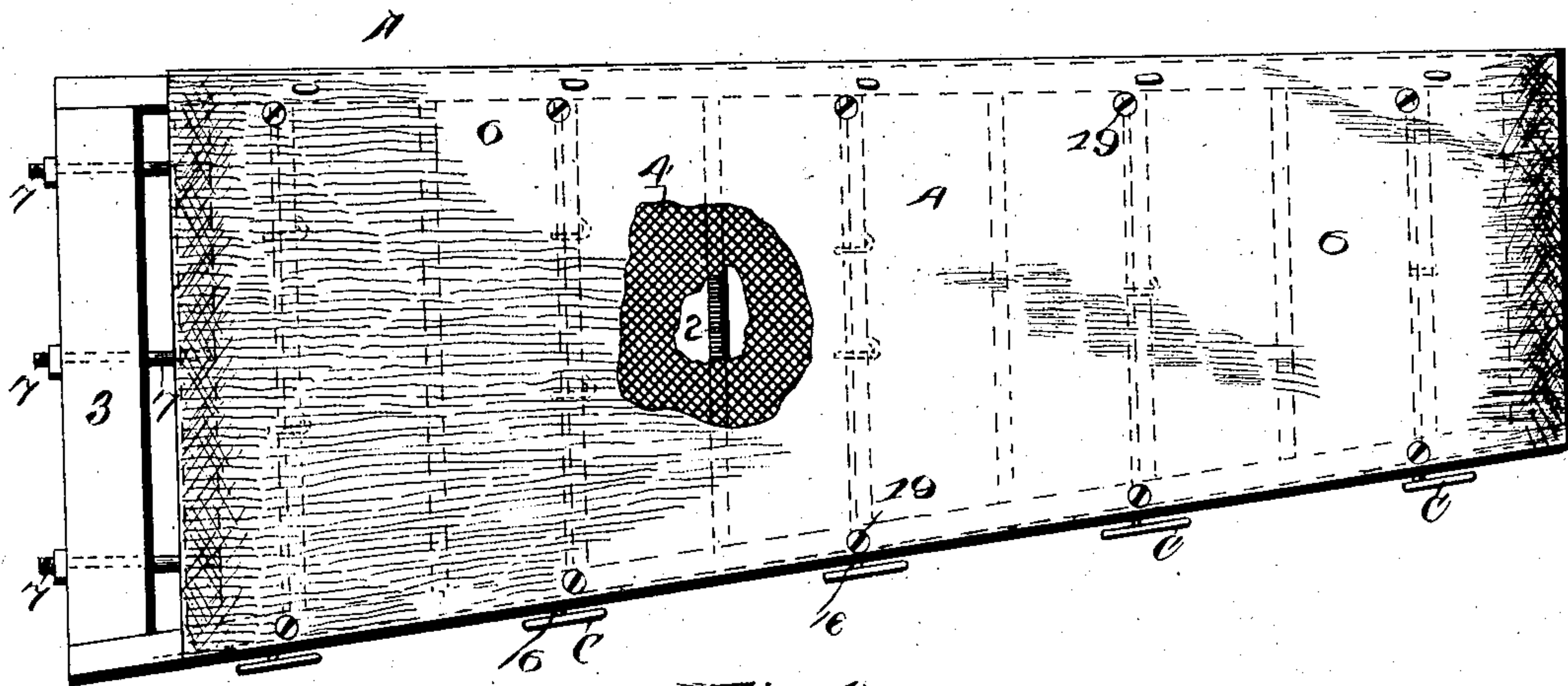
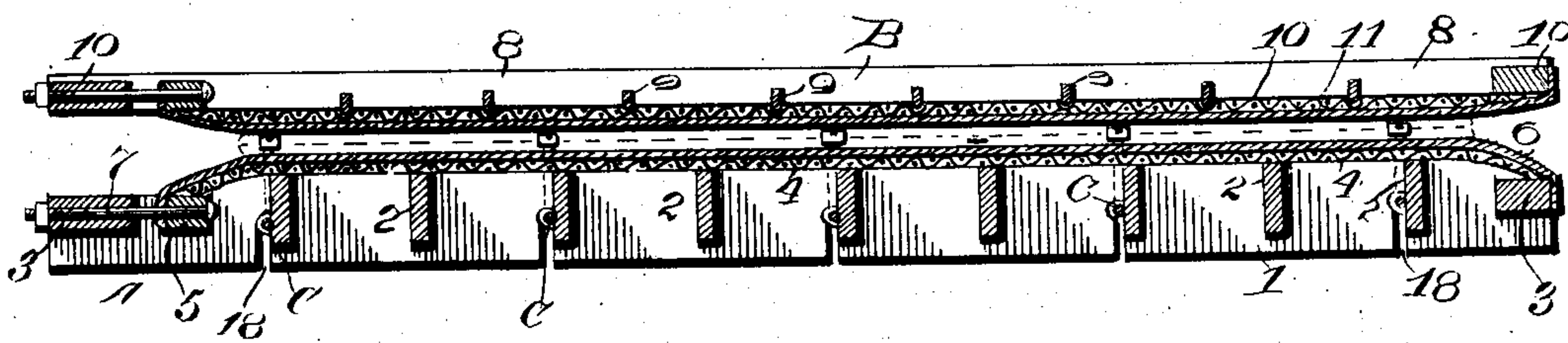


Fig. 4



WITNESSES:

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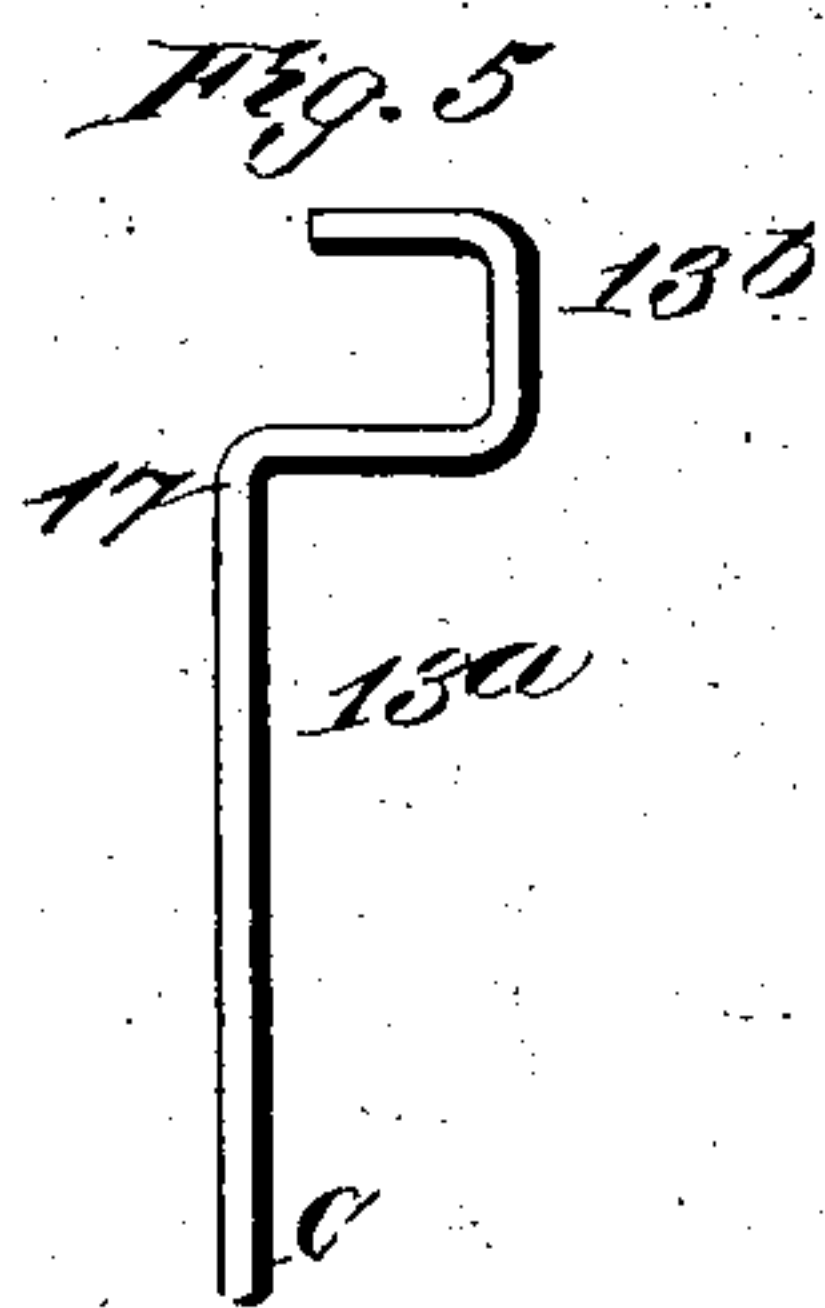
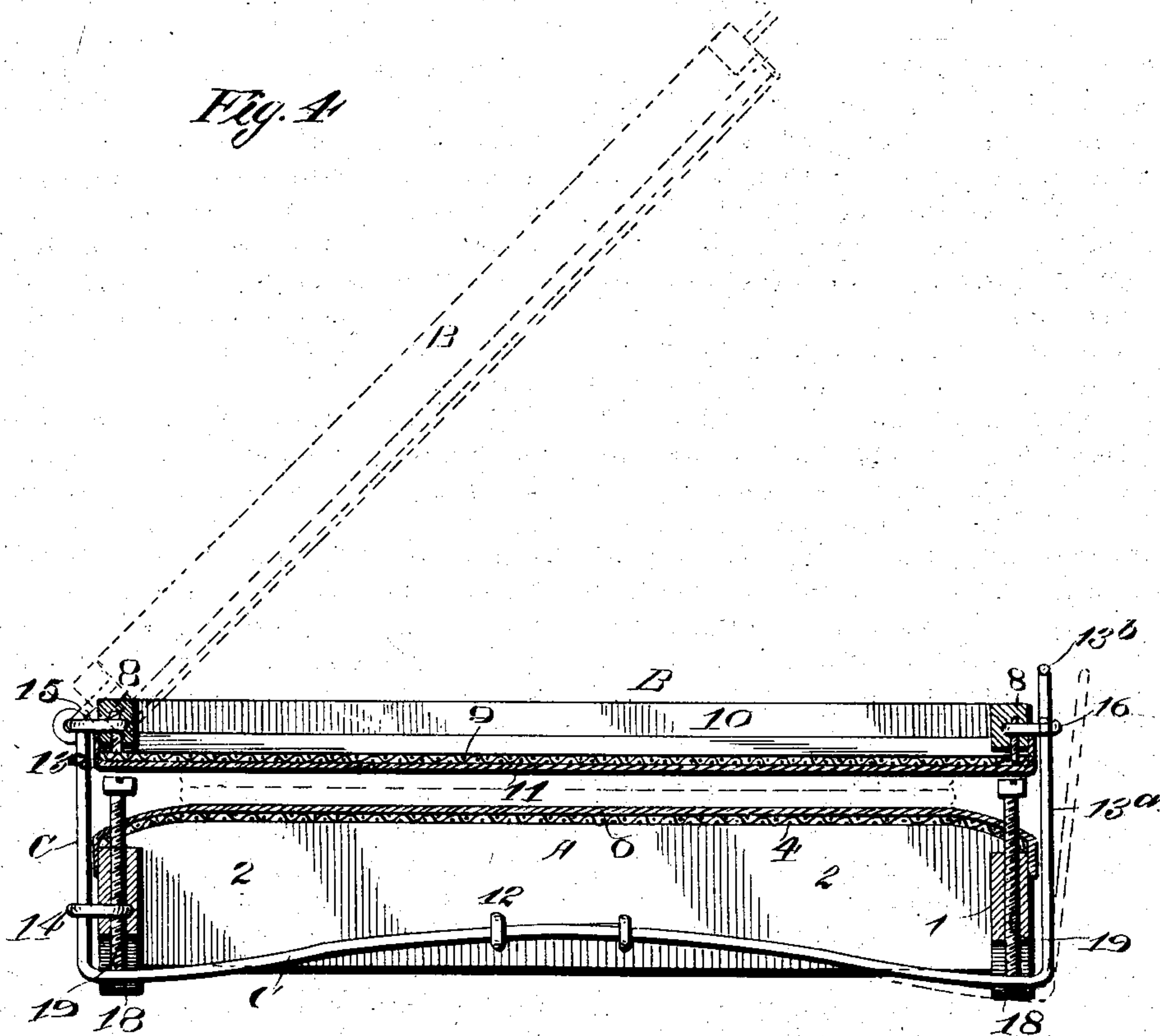
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UNITED STATES PATENT OFFICE.

EDINBURGH GRAHAM, OF ORANGEBURG, SOUTH CAROLINA.

TROUSERS-PRESS.

SPECIFICATION forming part of Letters Patent No. 760,194, dated May 17, 1904.

Application filed September 30, 1903. Serial No. 175,178. (No model.)

To all whom it may concern:

Be it known that I, EDINBURGH GRAHAM, a citizen of the United States, residing at Orangeburg, in the county of Orangeburg and State of South Carolina, have made certain new and useful Improvements in Trousers Creasers and Pressers, of which the following is a specification.

My invention is an improvement in devices or apparatus for creasing and pressing the legs of trousers without the aid of a hot iron. It is more particularly an improvement upon the apparatus for which I have obtained Letters Patent No. 750,186, dated January 19, 1904. In my former apparatus two frames are hinged together, the trousers to be creased and pressed being laid between them and the frames pressed tightly together.

My present invention relates particularly to the means for hinging the two frames together and providing for vertical adjustment of the upper one relative to the lower one for the purpose of adapting the apparatus for pressing trousers of varying thickness or pressing two or more simultaneously.

The invention further relates to certain details of construction hereinafter set forth.

In the accompanying drawings, Figure 1 is a plan view of the apparatus. Fig. 2 is a plan view of the lower frame of the apparatus. Fig. 3 is a longitudinal vertical section of the apparatus. Fig. 4 is a transverse vertical section, the upper frame being shown by dotted lines as elevated for the purpose of inserting or removing trousers. Fig. 5 is a side view of a portion of the device employed for connecting the two frames.

In Figs. 1 to 4, inclusive, A indicates the lower frame or portion of the apparatus, and B the upper frame thereof. The lower frame (see especially Fig. 3) is constructed of side bars 1, cross-bars 2, and end cross-bars 3, all of which are rigidly connected. The upper edges of the cross-bars 2 (see Fig. 4) are elevated slightly above the side bars 1, and their ends are rounded or beveled, as shown. A sheet of woven wire 4 is laid upon the cross-bars 2 and secured at one end to the right-hand end bar 3 and at the other end to a movable bar 5. (See Fig. 3.) A sheet of fabric

6 is laid upon the woven wire 4 and secured to the same bars 3 and 5. The bar 5 is not connected directly with the side bars 1 of frame A, but is movable between them and is directly connected with the adjacent end bar 3 by means of screw-bolts 7, having nuts applied to their outer ends, which project from the bar 3. By this means the tension of the woven wire 4 and its covering 6 may be adjusted as required.

The upper frame or part B is constructed in essentially the same manner—that is to say, it is composed, primarily, of side bars 8, having cross-bars 9 and end bars 10. The cross-bars 9 are preferably constructed of iron, being thus narrower and thinner than the bars 2 of frame A. Their ends are laid into mortises or gains in the side bars 8, and they are secured by means of staples driven over their ends. As indicated in Figs. 3 and 4, the lower edges of the cross-bars 9 project a short distance below the side bars 8, and it will be further noted that they are so arranged as to be directly opposite the spaces which intervene the cross-bars 2 of the lower frame. A sheet of woven wire 10 and a sheet of fabric 11 are applied in the same manner as to the frame A, and the same means are provided for stretching them.

In my former invention the lower frame was not provided with a woven-wire covering, as in the present case, but consisted of a solid plate provided with a covering of any suitable fabric.

In operation the trousers to be pressed and creased are first dampened and then straightened out on the lower frame, or rather upon the cloth covering 6 thereof, as indicated by dotted lines, Figs. 3 and 4. The thin material covering the woven wire permits the moisture to evaporate very rapidly, or, in other words, permits a quite free circulation of air, so that when the trousers have remained a short time in the apparatus they will become pressed and creased in the desired manner. This operation is effected much more quickly than in the case of my previous invention, for which I have obtained patent as aforesaid, since evaporation is permitted from the lower side as well as the upper one. Further, by

the arrangement of the slats or cross-bars of the upper frame B relative to those of the lower one A each cross-bar presses at a point where the opposite surface is elastic and free.

5 In other words, by so arranging the cross-bars of the respective frames A and B that they are not directly opposite each other evaporation of moisture is more rapid and uniform than would otherwise be the case.

10 The means for hinging and fastening the two frames A and B together and providing for adjustment of one relative to the other and for elastic pressure of one upon the other are as follows: As indicated best in Fig. 4, an

15 elastic rod or stout wire C is arranged transversely of the lower frame B and its ends turned upward. It is held centrally by means of eyebolts 12, inserted in a cross-bar 2. There are preferably five of these devices, as

20 indicated in Figs. 1 to 3. The left-hand end 13, which is upturned, passes through a guide 14, forming a fixed attachment of the adjacent side bar 1, and its upper end has a hinge connection at 15 with a side bar 8 of the up-

25 per frame B. It will be seen that the frame B is adapted to swing on the five hinges thus provided. The right-hand end 13^a of the device C has a double bend at 13^b, as shown in Fig. 5, and is adapted to engage a catch 16,

30 forming a rigid attachment of the adjacent side bar 8 of frame B. As illustrated by dotted lines, Fig. 4, the part 13^a may be pulled laterally off from the catch 16 when it is required to open or raise the frame B. The point of

35 engagement of the catch 16 with the handle 13^b is indicated at 17 in Fig. 5. The upper horizontal bend of the part 13^b serves as a hand-grip or handle for use in manipulating the device. The lower edges of the side bars 1

40 of the frame A are provided with transverse slots or notches 18 to receive the spring-fastening and hinge C. Elongated screw-bolts 19 pass vertically through the side bars 1, and their lower ends bear upon the portions of the

45 spring C which are directly below them. Thus by adjusting the screws 19 greater or less pressure may be applied to the spring C. This means not only provides for adjusting the pressure upon the trousers as desired, but

50 also adapts the apparatus for pressing two or more pairs of trousers simultaneously. In other words, if it be desired to press two pairs simultaneously the screws 19 are so adjusted as to allow the springs C to rise higher in the

55 slots 18 than for pressing a single pair. In brief, the screws 19 provide for two functions or adjustments, one for varying the pressure

upon the trousers and the other for accommodating trousers of different thicknesses or two or more pairs thereof.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with frames between which the goods are to be pressed, of a device 65 which connects them, and screws arranged in one of said frames and bearing upon the said device in the manner shown and described.

2. The combination, with frames between which the goods are to be pressed, of com- 70 bined hinges and fastenings consisting of metal springs which are secured at their middle to the lower frame and extend laterally and then upward alongside the frames, one end thereof being hinged to the upper frame 75 and the other adapted for detachable engagement therewith, and screws arranged in the side portions of the lower frame and bearing upon the springs at points adjacent to their angles, substantially as described. 80

3. The combination, with upper and lower frames, of the combined hinges and fastenings consisting of wire springs which are secured to the cross-bars of the lower frame and are bent upward alongside the frame, one end 85 thereof being hinged to the upper frame and the other constructed with a bend which engages a catch of the upper frame, the side bars of the lower frame being slotted to receive the said springs, and screws arranged 90 in the said bars and projecting down into the slots thereof so that they bear upon the adjacent portions of the springs in the manner described.

4. The combination, with two frames hav- 95 ing their adjacent surfaces covered with woven wire, of spring connections consisting of spring-wires attached to the lower frame which is provided with slots in its side portions, the end portions of the wires extending 100 through said slots and extending up alongside the frames, one end being hinged to the upper frame and the other constructed with a shoulder adapted to engage a projection on the other side of said frame, whereby the up- 105 per frame is held upon the lower with an elastic pressure, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDINBURGH GRAHAM.

Witnesses:

JOHN LAND,
F. M. PERCIVAL.