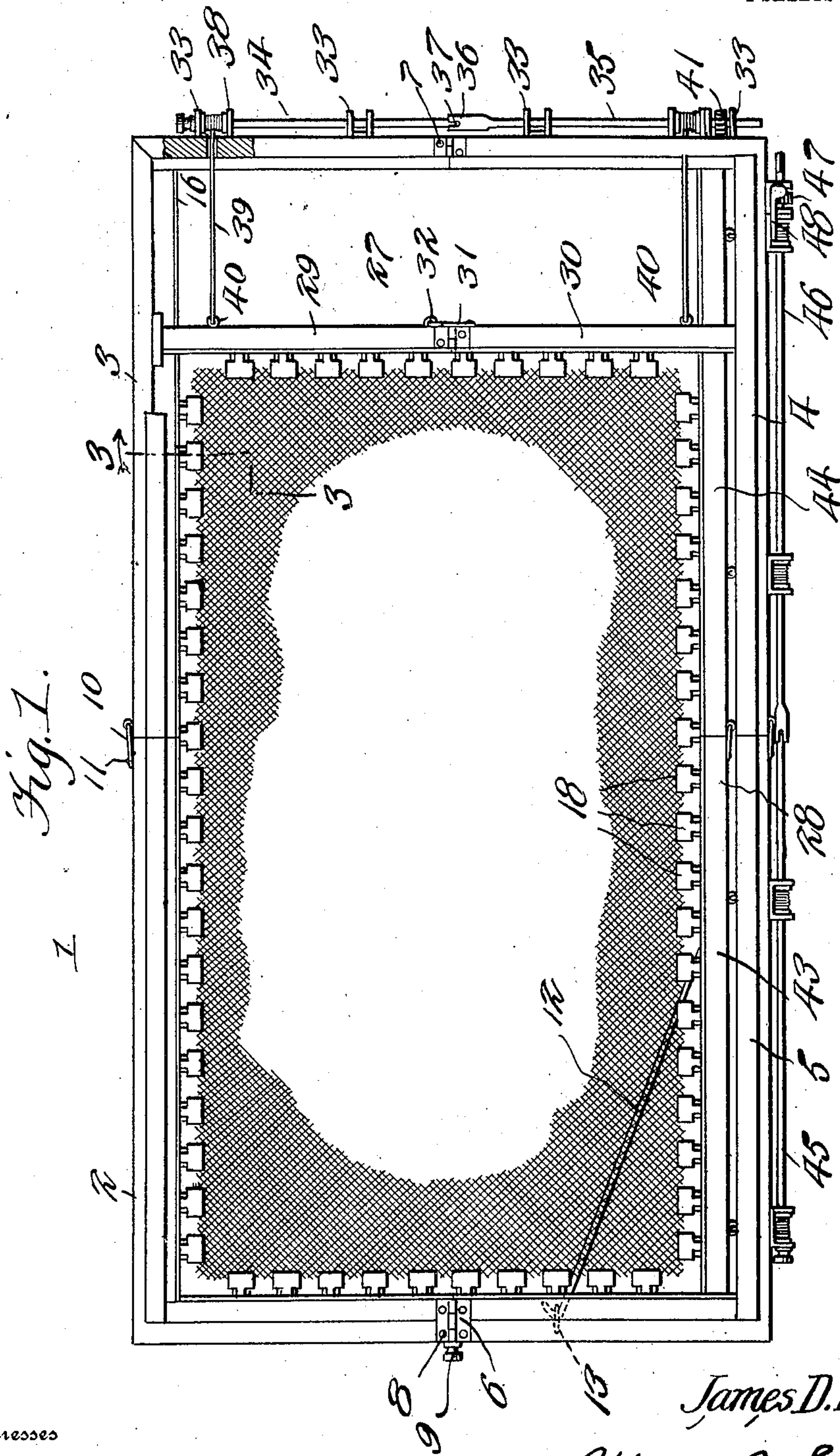


J. D. MASON.
CURTAIN STRETCHER.
APPLICATION FILED FEB. 11, 1909.

925,366.

Patented June 15, 1909.

2 SHEETS—SHEET 1.



Witnesses

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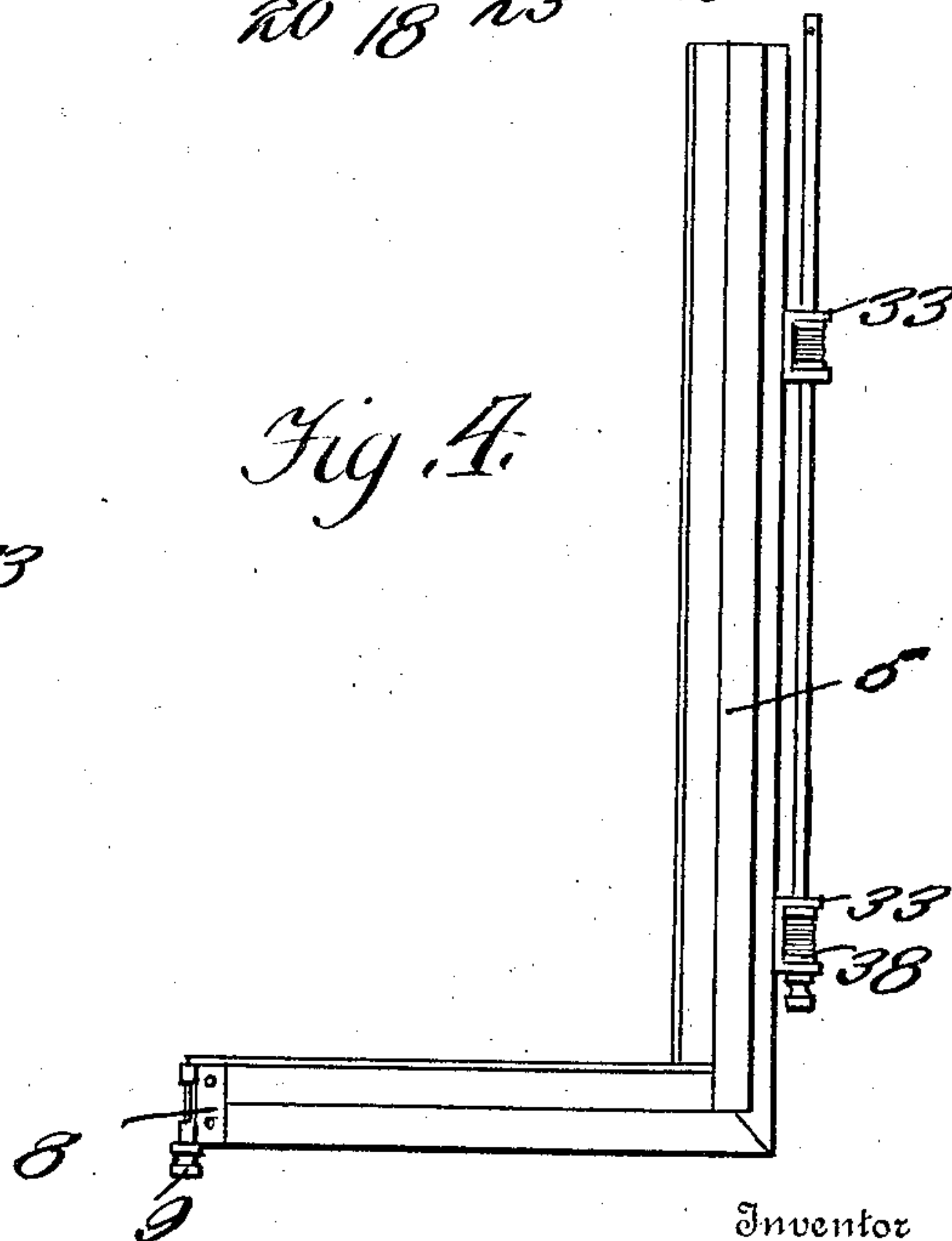
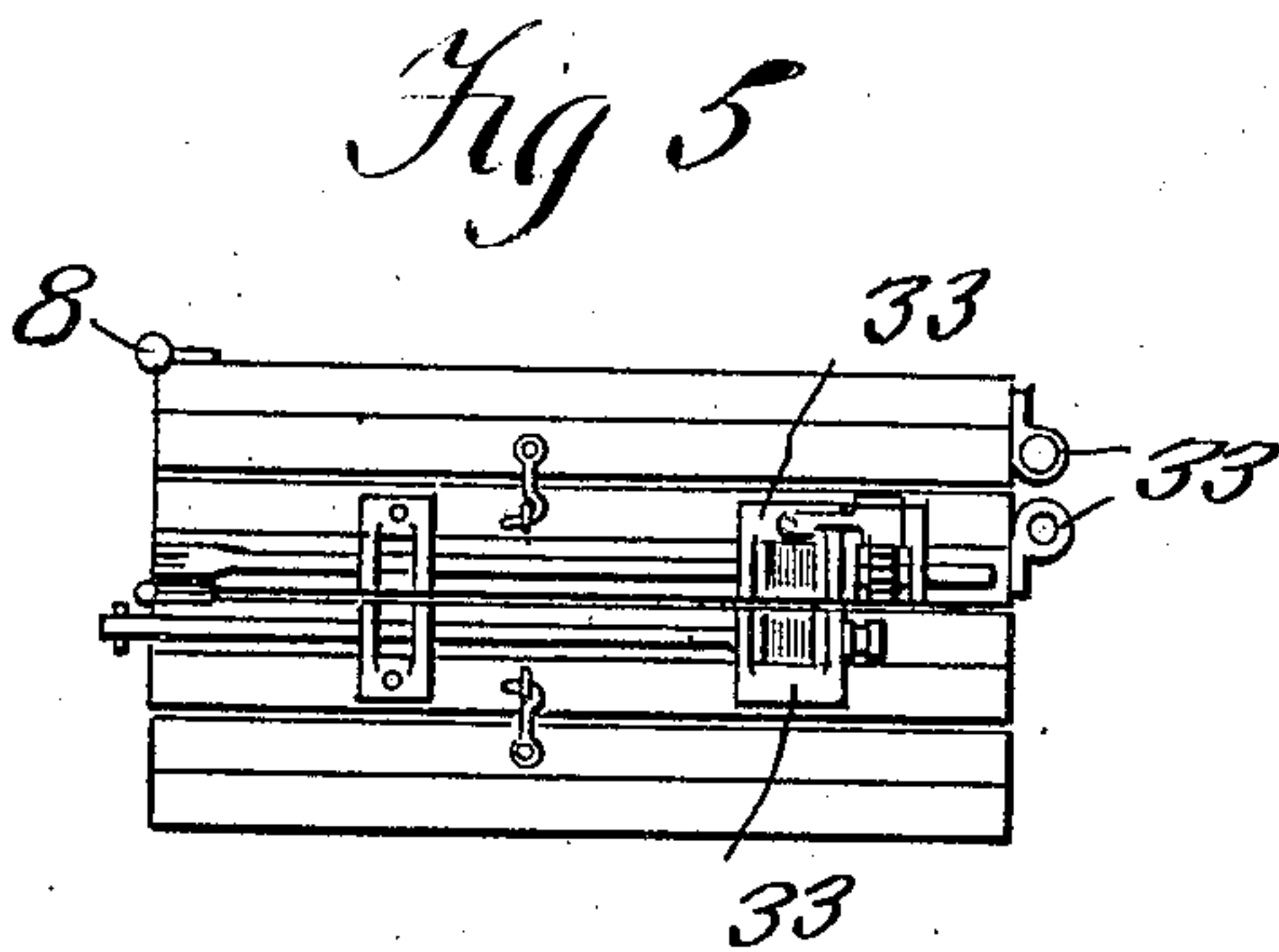
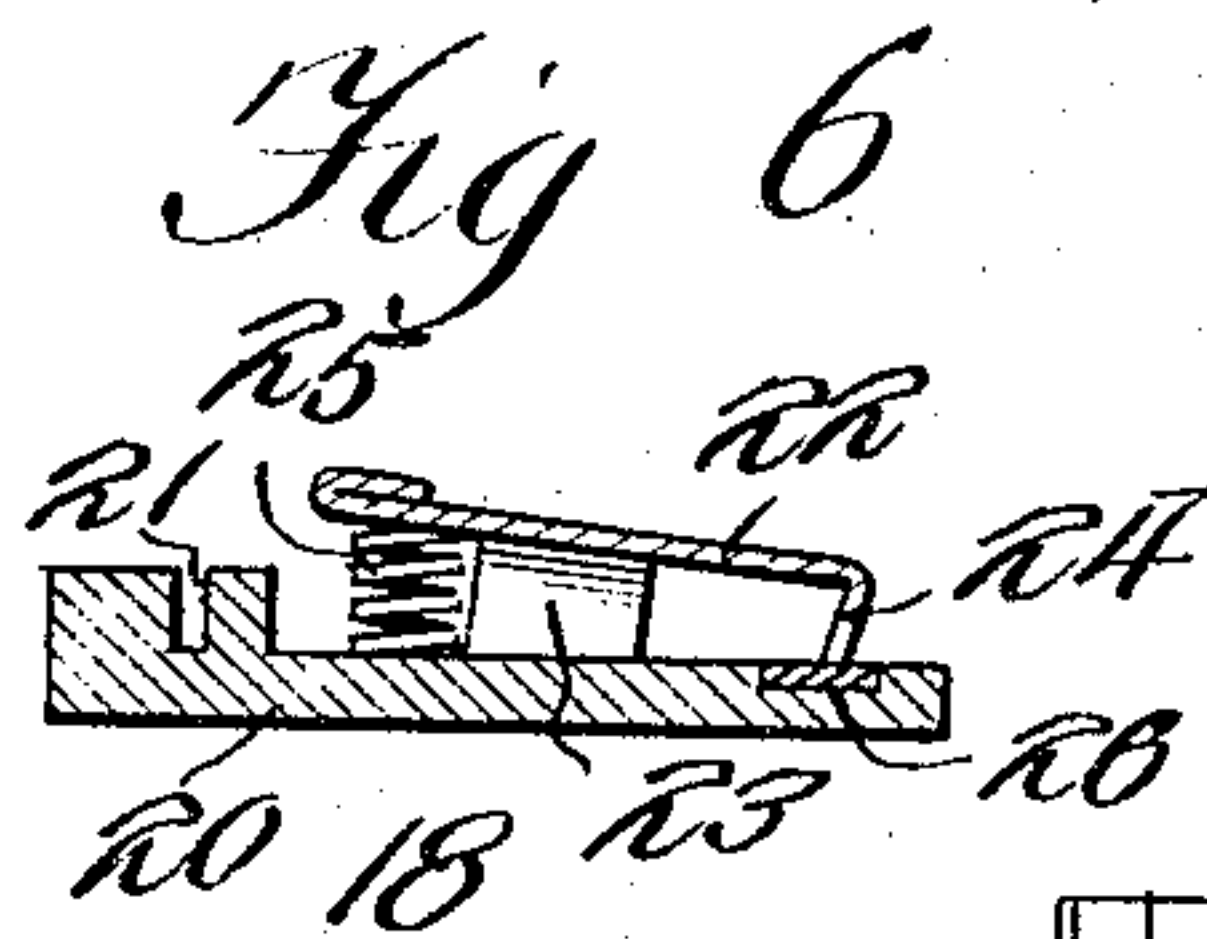
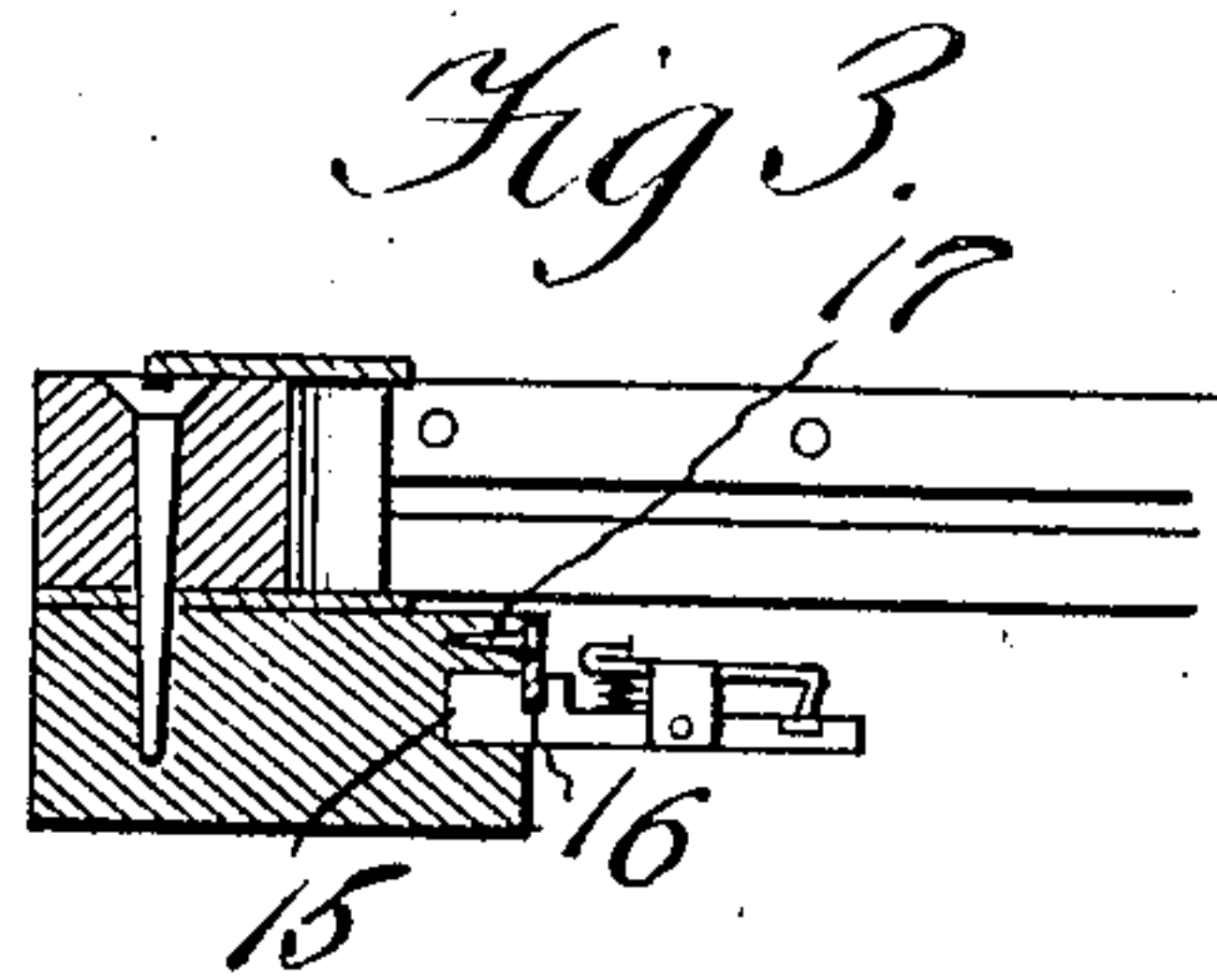
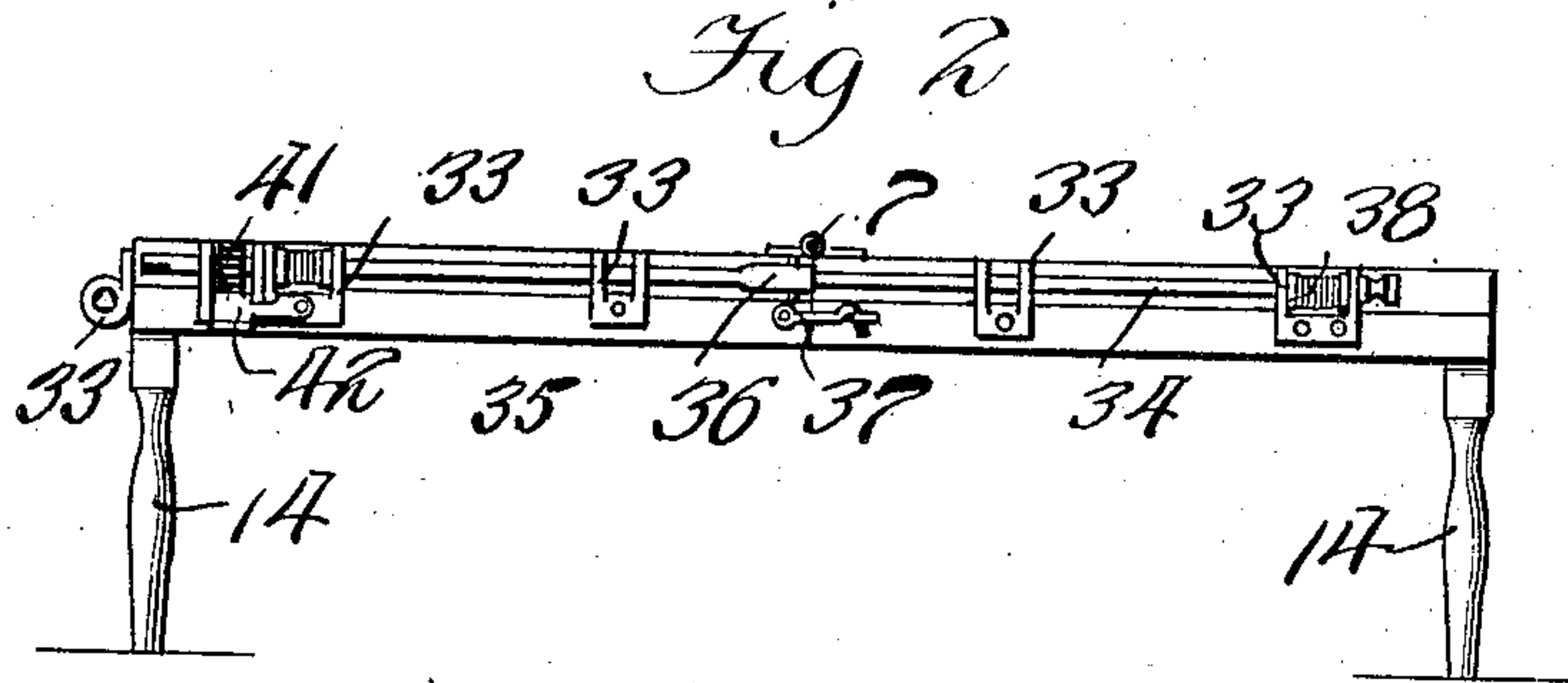
Attorney

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Witnesses

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UNITED STATES PATENT OFFICE.

JAMES D. MASON, OF GLADYS, VIRGINIA.

CURTAIN-STRETCHER.

No. 925,366.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed February 11, 1909. Serial No. 477,310.

To all whom it may concern:

Be it known that I, JAMES D. MASON, a citizen of the United States of America, residing at Gladys, in the county of Campbell and State of Virginia, have invented new and useful Improvements in Curtain-Stretchers, of which the following is a specification.

This invention relates to improvements in curtain-stretchers, and the object of the invention is to provide a curtain-stretcher through the medium of which curtains after being washed may be stretched without liability of becoming torn, and, furthermore, the invention contemplates the provision of a curtain-stretcher provided with cooperating parts whereby the stretcher may be folded or collapsed when not in use so as to occupy a minimum amount of space.

A further object of the invention is to provide a curtain-stretcher which is so constructed as to adapt itself for use in a vertical or a horizontal position as desired.

A still further object of the invention is to provide a curtain-stretcher wherein the use of pins or other pointed retaining elements is entirely obviated, and wherein the clasps retaining the curtain exert a firm grasp upon the same but entirely obviate the liability of the tearing of the curtain.

With the above, and other objects in view which will appear as the description progresses, the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred embodiment of the invention, and in which:

Figure 1 is a top plan view of the device showing the same in its operative position. Fig. 2 is an end view of the same, taken upon a reduced scale. Fig. 3 is a sectional view upon the line 3-3 of Fig. 1. Fig. 4 is a top plan view showing the device in its folded position. Fig. 5 is an end view of the device in its folded position. Fig. 6 is an enlarged sectional view through one of the clasp members.

In the accompanying drawings the numeral 1 designates the stretcher proper. This stretcher comprises four L-shaped members designated by the numerals 2, 3, 4 and 5. The stretcher when set up in its operative position, as illustrated in Figs. 1 and 2 of the drawings, present a substantially rec-

tangular frame, the end members of the sections 2 and 5 being connected through the medium of a suitable hinge 6 and the end portions of the members 3 and 4 being connected through the medium of a hinge 7, while the longitudinal side members of the sections 2, 3, 4 and 5, are also connected through the medium of suitable hinges 8 positioned upon the under faces of the said sections when the device is in its operative position. The hinge member 6 has one of its knuckles arranged upon the end of section 2, while the cooperating knuckles of the hinge are arranged upon the opposite section 2. The knuckles are pivotally connected through the medium of a removable pintle 9, and it will be noted that by withdrawing the pintle 9, the sections 2 and 5 may be folded beneath the sections 3 and 4, and when in such a position the sections 3 and 4 may be folded upon the hinge 7 so as to arrange the frame of the device in a compact L-shaped structure as illustrated in Fig. 4 of the drawings.

When the frame is in its operative position it is effectively sustained from collapsing through the medium of suitable hooks and eyes 10 and 11 arranged upon the meeting edges of the members as clearly illustrated in the figures of the drawings. In order to more securely sustain the frame in its operative position one or more of the sections, say 2 and 4 may be arranged with a pivoted rod 12 having its free end offset and adapted to engage with an eye 13 provided upon the under face of either or both of the opposite sections 3 and 5. The corners of each of the sections, 2, 3, 4, and 5 are provided with suitable bores which are adapted to receive the upper reduced extremities of legs 14. By this arrangement it will be noted that the device may be sustained in the horizontal position if desired, and that by merely removing the legs from their bores or sockets, the frame may be sustained in an inclined or vertical position. The inner faces of the end portions of the sections 2 and 5 as well as the inner faces of the sides of the sections 2 and 3 are each provided with alining grooves or recesses designated by the numeral 15. These grooves 15 are each provided with a depending flange upon their outer portions as designated by the numeral 16. The members forming the flanges 16 are preferably con-

5 constructed of strips of sheet metal secured to the section members above the grooves through the medium of detachable threaded elements 17. The grooves 16 are adapted
 10 for the reception of the clasp members 18. Each of these clasp members 18 comprise a lower or body portion 20 which is substantially rectangular in formation and has one of its ends provided with an enlargement
 15 adapted for reception within the grooves 15, and the upper face of this enlargement is provided with a transverse groove 21 which is adapted to be engaged by the depending flange of the plates 16. The base 20 is pro-
 20 vided with a catch member 22 having its sides provided with ears 23 which are adapted to straddle and to be pivotally connected with the sides of the base 20. This clasp member 22 has its outer end bent at an
 25 angle so as to provide a gripping face 24 while positioned between the outer face of the clasp member 22 and the upper face of the body 20 is a suitable pressure spring 25, which is adapted to exert upward pressure
 30 upon the clasp and force its gripping face 24 tightly against the upper face of the member 20. In order to provide a smooth bearing for the face 24 and also to prevent the same from tearing or mutilating the cur-
 35 tains to be engaged by the clasp, the body 20 is provided with a transversely arranged groove which is adapted for the reception of a strip of flexible material such as rubber or the like, and designated by the nu-
 40 meral 26. By this arrangement it will be noted that a certain amount of compression is allowed to the gripping face of the clasp member and which will entirely obviate the tearing or mutilation of the curtain engaged
 45 by the clasp. It will be further seen that by constructing the clasp as above described the danger of the person applying the curtain to the frame pricking his hands from the pointed retaining elements commonly
 50 employed in connection with curtain-stretchers is entirely overcome.

The opposite ends of the frame sections as well as the opposite side sections of the frame sections are each provided with mov-
 55 able securing devices 27 and 28. The member 27 comprises a pair of centrally pivoted bars 29 and 30. These bars are provided with grooves and retaining plates similar to those previously described, and are also pro-
 60 vided with slidable clasp members constructed and arranged as are the members 18. The ends of the bars 29 and 30 are slidably mounted in suitable grooves provided by the side members 3 and 4 and the said bars are
 65 sustained in horizontal position, as illustrated in Fig. 1, through the medium of a hook 31 pivotally connected with the bar 30 engaging an eye 32 connected with the bar 29. By reference to Fig. 1 of the drawings it will be noted that the hinged member con-

necting the bars 29 and 30 is arranged in a direct plane with the hinge 7 connecting the L-shaped sections 3 and 4, so it will be readily understood that the bars 29 and 30 may be folded with the sections 3 and 4 when it
 70 is desired to collapse the device.

Mounted in suitable bearings 23 provided upon the outer faces of the ends of the L-shaped sections 3 and 4 are a pair of shafts 34 and 35. One of these shafts 35 is pro-
 75 vided with an enlarged recess portion having oppositely cut away faces as indicated by the numeral 36, while the opposite shaft 34 is provided with oppositely extending lugs or projections 37 adapted to engage the
 80 walls provided by the cut away portions 36. By this arrangement it will be noted that when the sections 3 and 4 are swung together the pins 37 will readily enter the grooves 36 thus connecting the shafts 34 and 35. Each
 85 of the shafts 34 and 35 is provided with a suitable pulley or drum 38 upon which is wound a flexible element 39. The ends of the sections 3 and 4 are provided with suitable orifices through which the flexible mem-
 90 bers 39 are free to pass, and the free ends of these elements are connected to the bars 29 and 30 as indicated by the numeral 40. The shaft 35 extends a suitable distance be-
 95 yond the outer bracket 33, and this extending portion is flattened or otherwise non-circular in cross section so as to provide a hold for a suitable offset crank or handle member (not shown). By this arrangement it will
 100 be noted that as the shaft 35 is rotated it will in turn rotate the shaft 34 causing the flexible elements 39 to draw the bars 29 and 30 toward the ends of the sections 3 and 4, thereby drawing the end of the curtain to-
 105 ward the end of the sections 3 and 4 thus effectively stretching the curtain longitudinally. In order to retain the bars 29 and 30 in their proper position upon the frame when stretching a curtain, the shaft 35 is
 110 provided with a toothed wheel 41 and the end of the section 4 is provided with a suitable pawl 42 which is adapted to be swung into engagement between the teeth of the wheel 41, thereby effectively preventing the
 115 rotation of the shafts or the forward movement of the bars 29 and 30.

The securing device 28 is substantially similar to that of the device just described, comprising a pair of bars 43 and 44 hingedly connected at their centers and mounted at
 120 their ends within suitable guideways provided by the ends of the sections of the frame. The members 43 and 44 are sustained in proper alinement with each other through the medium of a hook provided
 125 upon one of the members engaging an eye provided upon the opposite member at their points of connection. The sides of the sections 4 and 5 are provided with a plurality of brace members which are adapted for the
 130

reception of a pair of shafts 45 and 46. These shafts 45 and 46 are similar in construction to the shafts 34 and 35, one having its end enlarged and provided with oppositely disposed recesses adapted for the reception of oppositely disposed pins provided upon the cooperating shaft. The shafts 45 and 46 are also provided with suitable drums upon which are wound suitable cables engaging the bars 43 and 44. One of the shafts, 46, has its end projecting a suitable distance beyond its outer bearing and this end is adapted for the reception of a suitable handle whereby the shafts may be rotated. The shaft 46 is also provided with a toothed wheel 47 and the frame 4 is provided with a pivoted pawl 48 which is adapted to engage between the teeth of the wheel 47 thereby effectively preventing the rotation of the shafts 45 and 46 and securing the members 43 and 44 in a desired position upon the frame thus retaining the curtain engaged by the clasps carried by the members 43 and 44 in a desired stretched position.

From the above description, taken in connection with the accompanying drawings, it will be noted that I have provided an extremely simple and thoroughly effective stretcher for lace curtains, one which may be readily collapsed and folded into small space for storage or shipment, one whereby the most delicate curtain may be effectively stretched without danger of tearing or otherwise damaging, one which may be effectively employed either in a horizontal or in a vertical position as desired, and one which may be manufactured at a comparatively small cost.

Having thus described the invention, what is claimed as new, is:

1. In a device for the purpose set forth, a substantially rectangular frame composed of four L-shaped members hingedly connected together, one of the hinges having its knuckles provided with a removable pintle, means for sustaining the frame in its spread position, the inner faces of the sections being provided with grooves, slidable clasp members arranged in these grooves at right angles to each other, stretching members within the opposite grooves, clasp members upon these stretching members, said stretching members being arranged at right angles to each other and each comprising a pair of bars hingedly connected together, means for sustaining these bars in their spread position, and means for sliding the bars toward one end and one side of the frame.

2. In a device for the purpose set forth, a rectangular frame comprised of four L-shaped sections hingedly connected together, a removable pintle for one of the hinges, means for sustaining the sections in their spread position, the inner faces of the sections being provided with longitudinally ex-

tending grooves, slidable clasp members arranged within two of the alining grooves at right angles to each other, stretching members slidably mounted within the opposite grooves and arranged at right angles to each other, each of said members comprising a pair of bars hingedly connected together, each of said stretching members having their inner faces provided with grooves, slidable clasp members within these grooves, and means for drawing the members toward one end and one side of the frame.

3. In a device of the character described, a substantially rectangular frame composed of four L-shaped sections hingedly connected together, means for sustaining the sections in their spread position, each of said sections having its inner face provided with longitudinally extending grooves, the inner faces of two of the right angularly arranged side and end sections being provided with depending lips partially closing the openings provided by the grooves, clasp members each provided with an enlarged head having a transverse depression adapted to be positioned within the grooves, and the depression to be engaged by the lip, said clasp members being provided with a pivoted securing member having an offset engaging face, a flexible bearing for this offset portion, a spring normally forcing the offset portion into engagement with the flexible bearing, the opposite grooves of the frame sections being provided with slidable stretching members, clasp members upon the stretching members, each of said stretching members comprising a pair of hinged bars, means for sustaining the hinged bars in their spread position, and means for forcing the stretching members toward the side and end of the frame respectively, and for sustaining the stretching members in any desired position upon the frame.

4. In a device for the purpose set forth, a rectangular frame composed of four L-shaped sections hingedly connected together, means for sustaining the sections in their spread position, slidable clasp members arranged upon one of the side and one of the end members of the frame, stretching members arranged upon the opposite side and end portion of the frame, said stretching members being each constructed of a pair of bars hingedly connected together, means for sustaining the bars in their spread position, spring actuated clasp members slidably connected with the stretching members, bearings upon the outer faces of the side and end portions of the frame adjacent the stretching members, shafts for these bearings, the shafts upon the side and end of the frame being each constructed of a pair of members, one having an enlarged mouth provided with oppositely disposed cut away portions, and the opposite being provided

with offsets adapted to engage within the cut
away portions when the sections are swung
into operative position, drums upon the
shafts, flexible members upon the drums con-
necting the sectional stretching members,
5 toothed wheels upon the shafts, catch mem-
bers pivotally connected with the frame and
adapted to be swung into engagement with

the teeth of the wheels, and means for ro-
tating the shafts.

In testimony whereof I affix my signature
in presence of two witnesses.

JAMES D. MASON.

Witnesses:

JNO. G. HAYTHE,
EVA C. READ.