

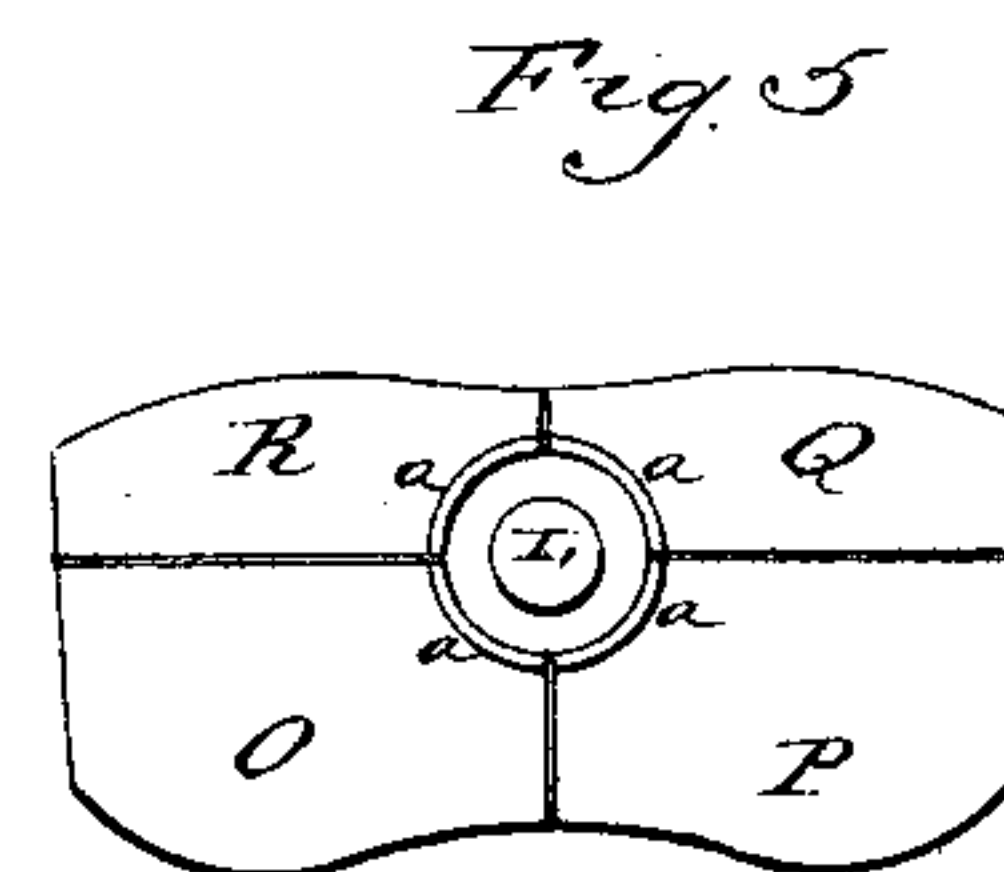
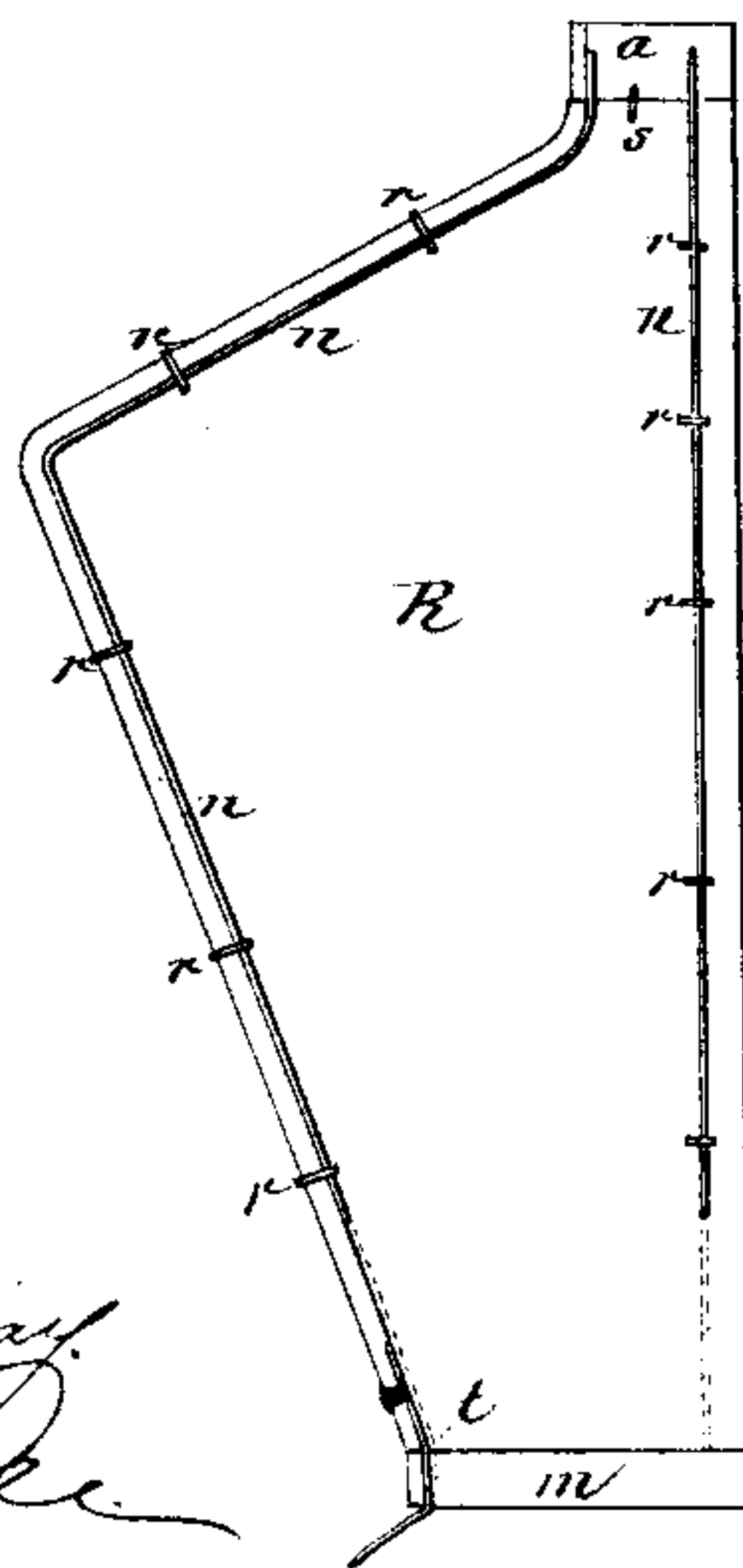
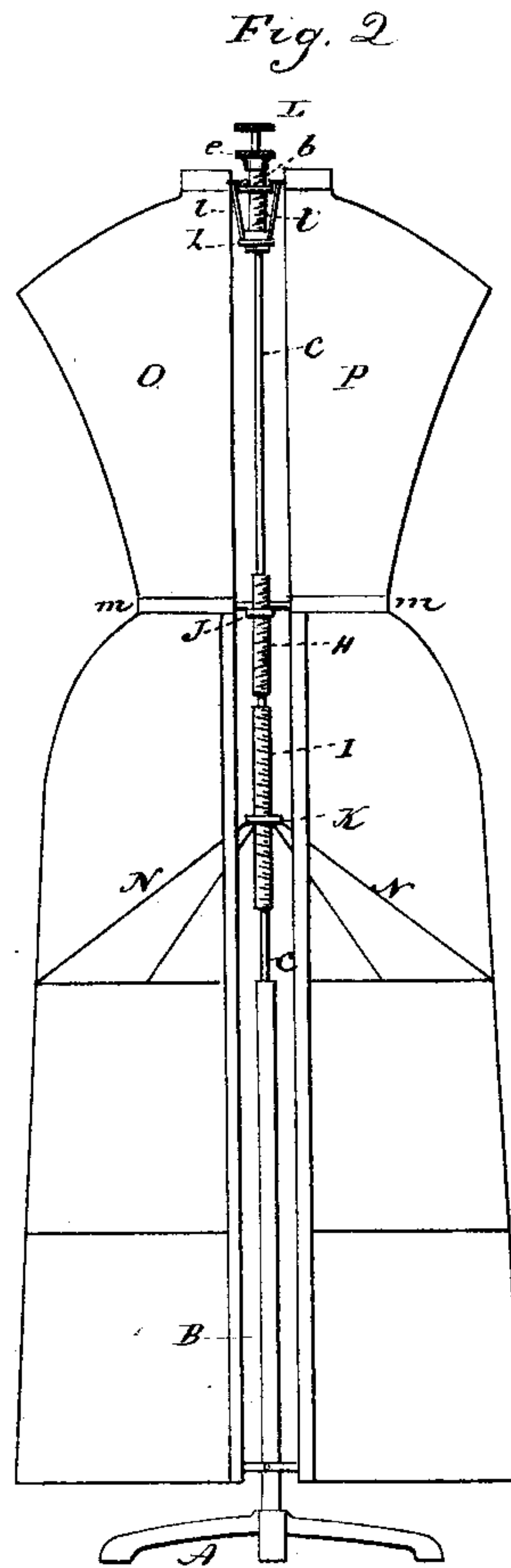
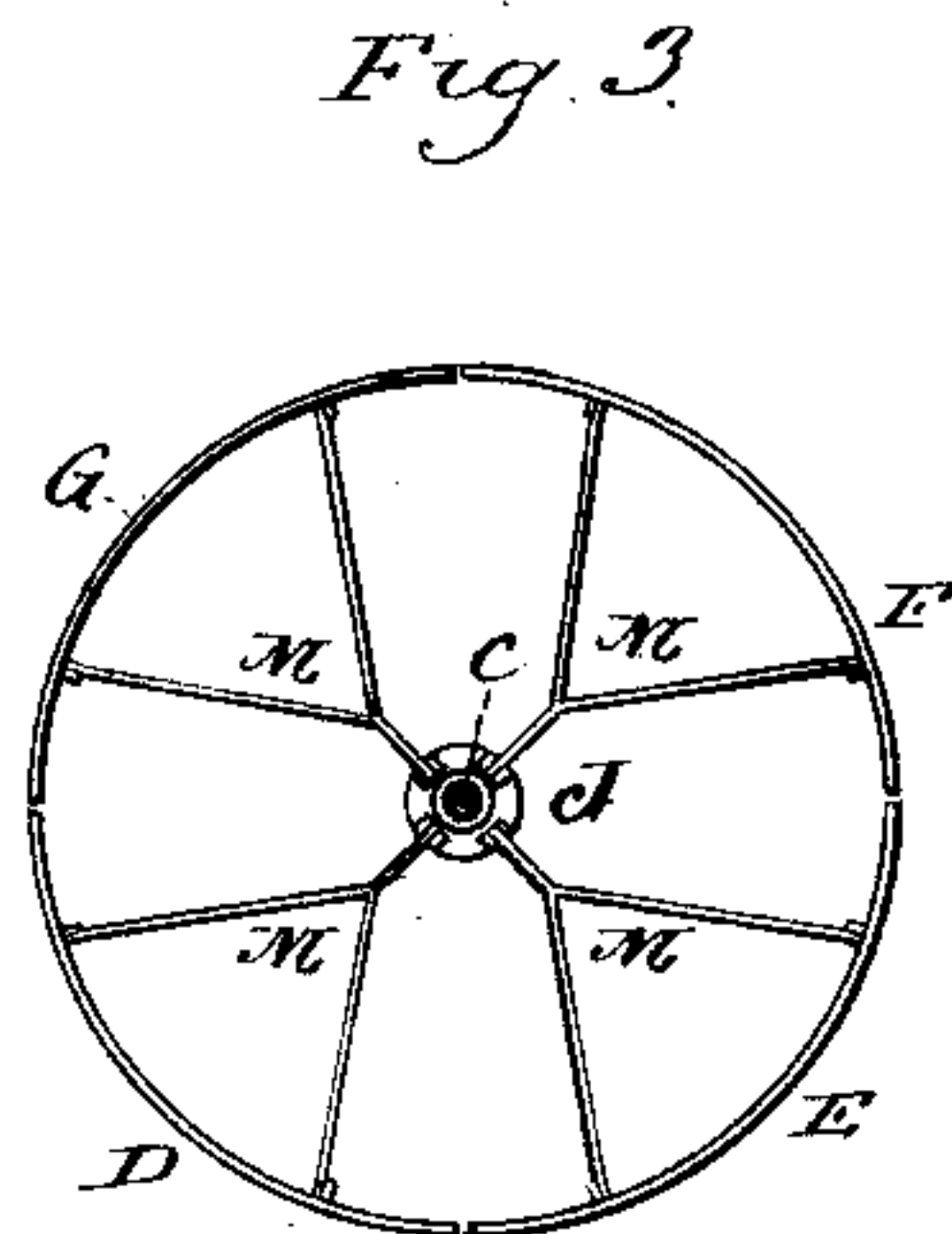
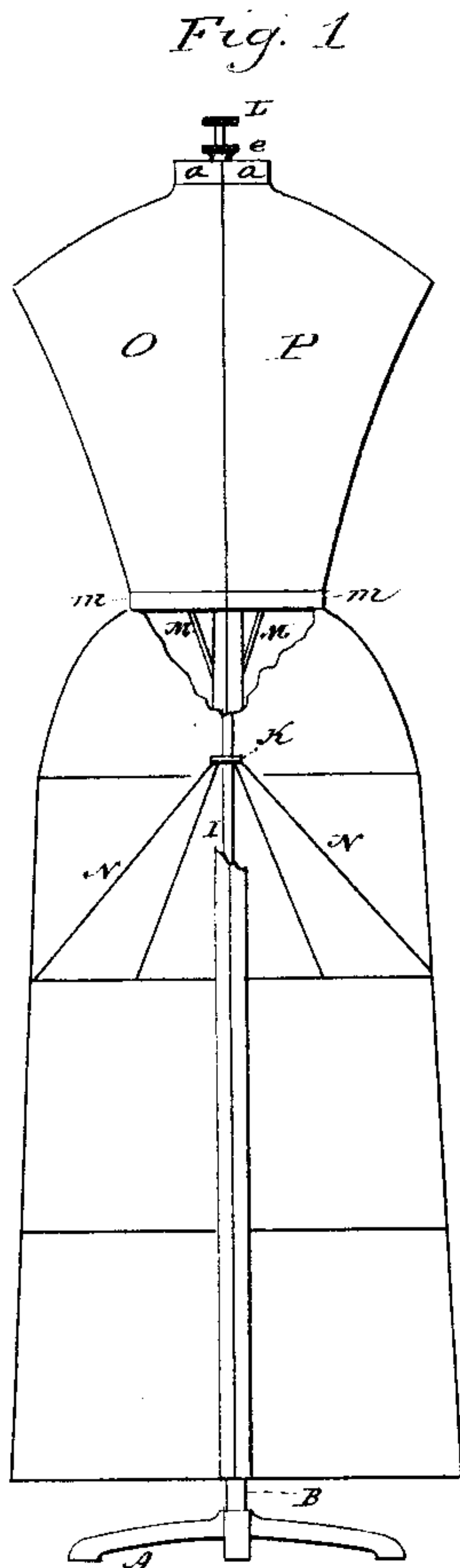
(No Model.)

2 Sheets—Sheet 1.

W. H. KNAPP.  
DRESS FORM.

No. 387,563.

Patented Aug. 7, 1888.



Witnesses  
J. H. Shumway  
Fred C. Baker

Wm. H. Knapp,  
By Atty. Inventor,  
J. H. Shumway

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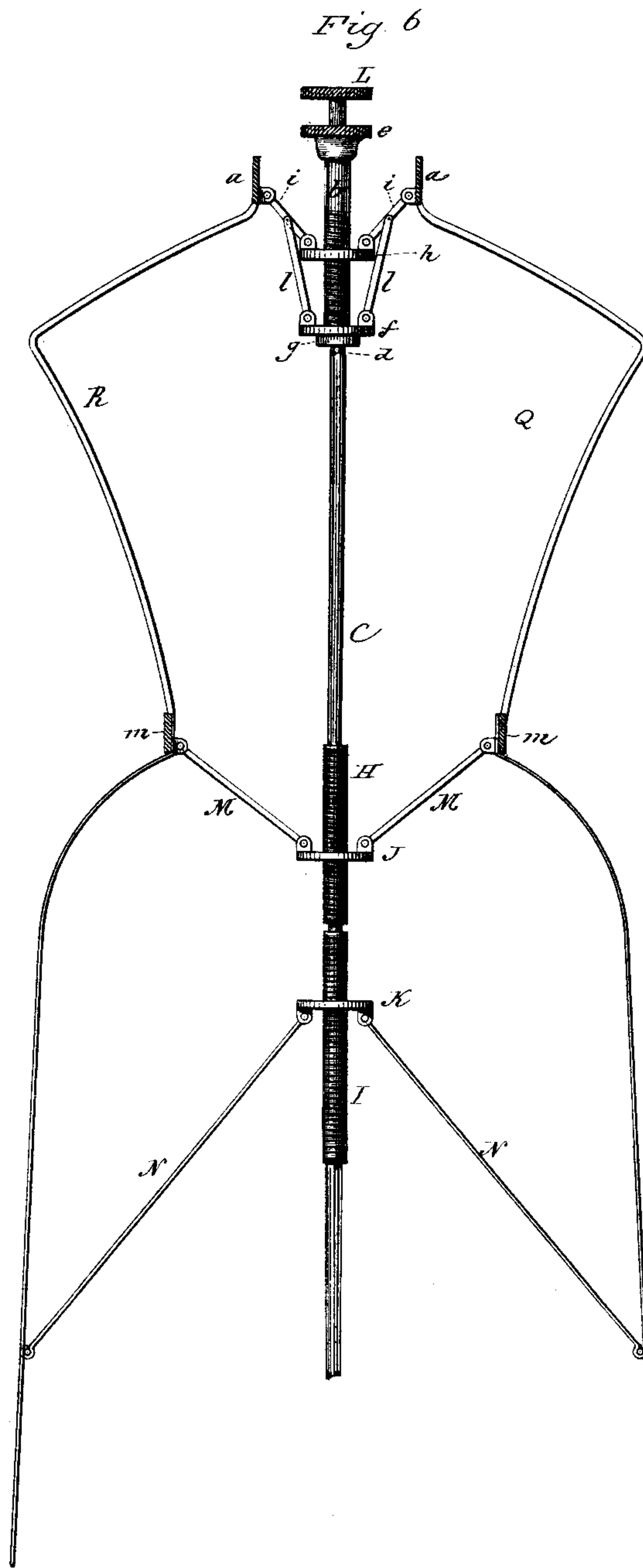
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# UNITED STATES PATENT OFFICE.

WILLIAM H. KNAPP, OF BROOKLYN, NEW YORK.

## DRESS-FORM.

SPECIFICATION forming part of Letters Patent No. 387,563, dated August 7, 1888.

Application filed June 18, 1888. Serial No. 277,424. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. KNAPP, of Brooklyn, in the county of Kings and State of New York, have invented a new Improvement in Dress-Forms; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a rear view of the form complete in the contracted position; Fig. 2, the same as Fig. 1, showing the form expanded; Fig. 3, a transverse section above the waist-segments, looking down, enlarged; Fig. 4, an inside view of one of the waist-sections, showing the rods to which the section is secured; Fig. 5, a top or plan view of the form; Fig. 6, a partial vertical section, enlarged, to illustrate the operation.

This invention relates to an improvement in that class of garment stands or forms which are designed to display ladies' wearing-apparel, or to serve as a convenience for arranging the drapery thereon, commonly called "dress-forms," with special reference to that class in which a full form—that is, a body and skirt—are embodied in one apparatus.

The object of the invention is to provide a single series of braces at the waist portion for the expansion and contraction of the waist portion, and which, with a single series of braces below, afford the entire adjustment for the skirt portion of the form; also, to make a firm and strong waist portion of other material than metal; and the invention consists in the construction as hereinafter described, and particularly recited in the claims. The full-figure forms are usually made in four sections, the divisions being vertically central through the figure, the two divisions being at right angles to each other—that is, one division from the central front to central back, and the other division from the central side to the opposite central side.

A represents the base, from which rises a tubular post or standard, B, as usual in this class of forms.

C represents a rod which is supported in the tubular standard B and forms the central spindle around which the dress-form is arranged.

The skirt portion is made in four sections, D, E, F, and G. (See Fig. 3.) Each section is best made as a frame-work of wire.

On the spindle C, near the waist, the spindle is constructed with a screw-thread, H, and below this screw-thread H is a second screw-thread, I, the two screw-threads H I being opposite—that is to say, one right hand and the other left. As here represented H is the left-hand and I the right hand screw-thread.

On the screw-thread H a collar, J, is arranged, which is screw-threaded, corresponding to the screw-thread H, and works as a nut on the said screw-thread H. On the screw-thread I is a similar collar, K, screw-threaded, corresponding to and so as to work upon the screw-thread I. The spindle C extends above the top of the figure and terminates in a head, L, by which the spindle C may be rotated, and under such rotation, if the collars J and K are held to prevent their rotation with the spindle, the result is that the said collars J and K will separate or approach each other according to the direction in which the spindle is rotated.

To the collar J braces M are hinged by their inner end, the said braces extending obliquely upward, and are connected, respectively, to the waistband or segments of the respective sections D E F G, as seen in Fig. 3. These braces are best made, as seen in Fig. 3, of Y shape, the foot of the Y hinged to the collars and the two branches of each Y hinged to the respective sections.

To the collar K similar braces, N, are hinged by their inner end. The braces, extending obliquely downward and outward, are connected by their outer ends to the respective sections D E F G of the skirt portion, and so that as the spindle C is rotated in one direction the collar J will rise and bring the braces toward a horizontal plane, as represented in Fig. 2, and correspondingly expand that portion of the figure, while at the same time the collar K descends and takes the braces N toward a horizontal position and expands the lower part of the skirt portion of the form accordingly, as also indicated in Fig. 2. A reverse rotation of the spindle will contract the skirt portion of the form.

The body portion above the waist-line is made in four sections, O, P, Q, and R, as seen



in Fig. 5. These sections I make from "papier-maché" or similar fibrous material, which may be molded into the requisite shape, two of the sections forming the back and the other two sections forming the front of the body portion. To unite these sections to the form and so that they may be adjustable therewith, I provide metal segments *a* for the neck, the four segments corresponding to the neck end of each of the waist-sections.

It is necessary that the neck portion should be adjustable. I therefore place upon the central spindle, *C*, a screw-threaded sleeve, *b*, which is supported on the spindle by a pin, *d*, transversely through the spindle, or otherwise, so as to hold the sleeve in a position vertically stationary with relation to the spindle *C*, but yet so that the sleeve and spindle may receive a rotary motion each independent of the other.

The sleeve *b* is provided with a head, *e*, beneath the head *L* of the central spindle, and by which the said sleeve may be rotated independent of the spindle. At its lower end the sleeve *b* carries a collar, *f*, loose upon the sleeve, but held against vertical movement, as by an enlargement, *g*, of the sleeve below the collar *f*.

Above the collar *f* the sleeve is screw-threaded, as shown, and on this screw-thread of the sleeve *B* is a correspondingly-threaded collar, *h*. To the collar *h* braces *i* are hinged by their inner end, and, extending obliquely upward, are hinged by their outer end to the neck-segments *a*.

To the collar *f* struts *l* are hinged by their lower ends. The struts, extending upward, are hinged by their upper ends to the braces *i* midway between the hinging-points of the braces, as seen in Fig. 6, and so that the said struts *l l* form fulcrums, upon which the said braces operate as levers, and so that, as the collar *h* is forced upward, by rotating the screw-threaded sleeve *b* the braces will turn upon the said struts and approach a horizontal position and correspondingly expand the neck-segments, and if the collar *h* be forced downward a corresponding contraction of the neck will be the result. At the waist-line the form is provided with metal segments *m*, from which the skirt-sections extend and to which segments the braces *M M* are hinged.

From the segments *a* wires or metal rods *n* extend downward inside the waist-sections, as represented in Figs. 4 and 6, where the section *R* is shown. These rods *n* are bent into shape corresponding to the shape of the respective sections and are in a position near the edge of each section, as clearly seen in Fig. 4. The rods are made fast to the neck-segments and extend down near to the waist-line, as seen in Fig. 4; or they may be continued to the waist-segment *m*, as indicated in broken lines Fig. 4.

Through the respective solid sections of the waist, metal clips *r* are introduced, more or less in number, extending through the sections and

closed upon the rods *n*, as seen in Fig. 4, so that the said sections are securely clamped to the said rods, and the rods give firm support to the edges of the respective solid sections. The solid sections may be also clipped to the respective segments—say the neck-segment, as represented at *s*, and to the waist-segment, as represented at *t*. Under this construction the segments may be molded from very light fibrous material and be made of great firmness and strength.

In adjusting the form the neck may be adjusted independent of the skirt portion by revolving the sleeve *b* alone; or the waistband and skirt portion may be adjusted independent of the neck by rotating the spindle independent of the sleeve *b*.

Instead of the peculiar mechanism which I have introduced for the adjustment of the waist portion at the neck, any of the known mechanisms for such adjustment of the neck may be employed—such, for illustration, as that found in United States Letters Patent No. 373,988, granted to me September 29, 1887.

It will be understood that I do not claim, broadly, a dress-form divided vertically into four or more sections, and which sections are made adjustable with relation to each other by means of a vertical spindle arranged centrally through the form and connected with the respective sections of the form by braces, through which the rotation of the spindle imparts an expansion or contraction to the form, as the case may be.

I claim—

1. A dress-form consisting of a central supporting standard, *B*, a spindle, *C*, supported by said standard and so as to permit the free rotation of said spindle, the frame divided vertically into several sections and surrounding said spindle, the spindle provided with a screw-thread, *H*, near the waist-line, and also constructed with a screw-thread, *I*, below the said screw-thread *H*, the said two screw-threads being the one right hand and the other left hand, a corresponding screw-threaded collar, *J*, on said screw-thread *H*, braces *M*, hinged by their inner end to said collar *J* and extending obliquely upward therefrom, hinged to the frame at the waist-line, a corresponding screw-threaded collar, *K*, on the said thread *I*, braces *N*, hinged by their inner end to said collar *K* and extending therefrom obliquely downward, hinged by their outer end to the skirt portion of the form, the waist portion of the form extending above the waist-line and divided corresponding to the skirt portion, and mechanism, substantially such as described, to adjust the waist portion at the neck, the central spindle, *C*, extending above the said neck and terminating in a head by which the said spindle may be rotated, substantially as described.

2. In a dress-form, the combination of a standard, a vertical revoluble spindle, *C*, a frame divided vertically into several sections surrounding said spindle, the said spindle constructed with a screw-thread, *H*, near the



waist-line and with a screw-thread, I, below  
 said screw-thread H, the said screw-threads H  
 and I being the one right hand and the other  
 left hand, a corresponding screw-threaded col-  
 5 lar, J, arranged upon the screw-thread H, and  
 a collar, K, upon the screw-thread I, braces  
 hinged by their inner ends to the respective  
 collars, the said braces from the collars extend-  
 ing obliquely in opposite directions, those from  
 10 one collar hinged to the frame at the waist-line  
 and from the other collar to the skirt portion  
 below, a screw-threaded sleeve, b, revoluble  
 on said spindle C, but supported against ver-  
 tical movement, braces i, hinged by their in-  
 15 ner end to the said collar h and extending  
 therefrom obliquely upward, hinged by their  
 outer ends to the segments of the neck portion  
 of the form, a collar, f, stationary on said  
 sleeve as to vertical movement, struts l,  
 20 hinged by their lower end to the said station-

ary collar f' and by their upper end to the said  
 braces i midway between their hinging-points,  
 the said sleeve terminating above in a head, e,  
 and the spindle terminating in a head, L, above  
 said sleeve, substantially as described. 25

3. In a full-figure dress-form divided ver-  
 tically into several sections made adjustable  
 around a central spindle, metal segments a  
 around the neck and similar metal segments,  
 m, at the waist-line, the several sections of the 30  
 waist made from molded material, with rods  
 n made fast to the said segments and conform-  
 ing to the interior vertical lines of the waist-  
 sections, with clips r through said sections  
 and upon said rods, substantially as described. 35

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Witnesses:

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