

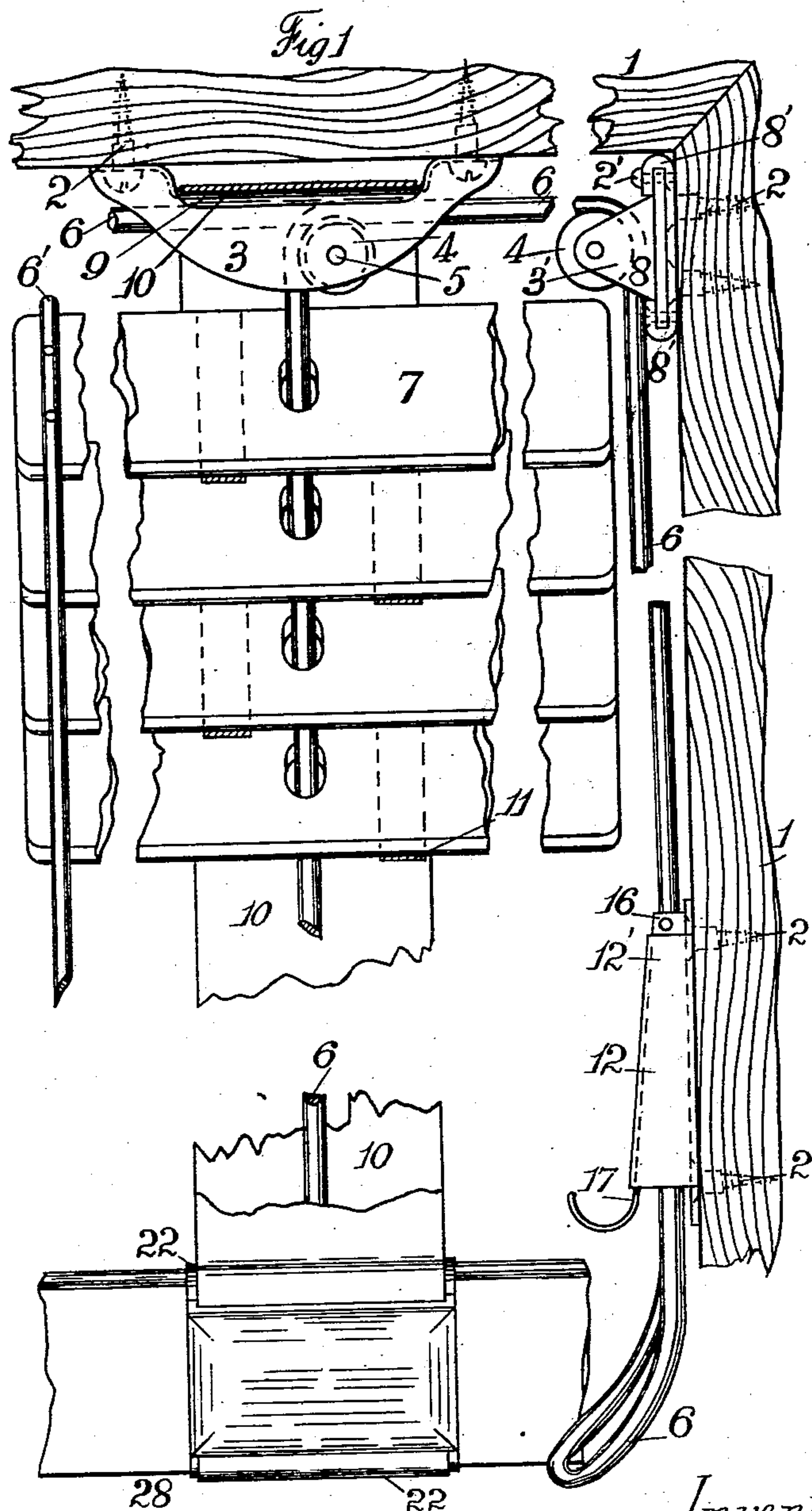
(No Model.)

4 Sheets—Sheet 1.

L. GUNN.  
VENETIAN BLIND.

No. 563,169.

Patented June 30, 1896.



Witnesses;  
Wm H. Edwards  
Arthur D. Bryant

Inventor  
Leonard Gunn  
per Wm H. Babcock  
Attorney.

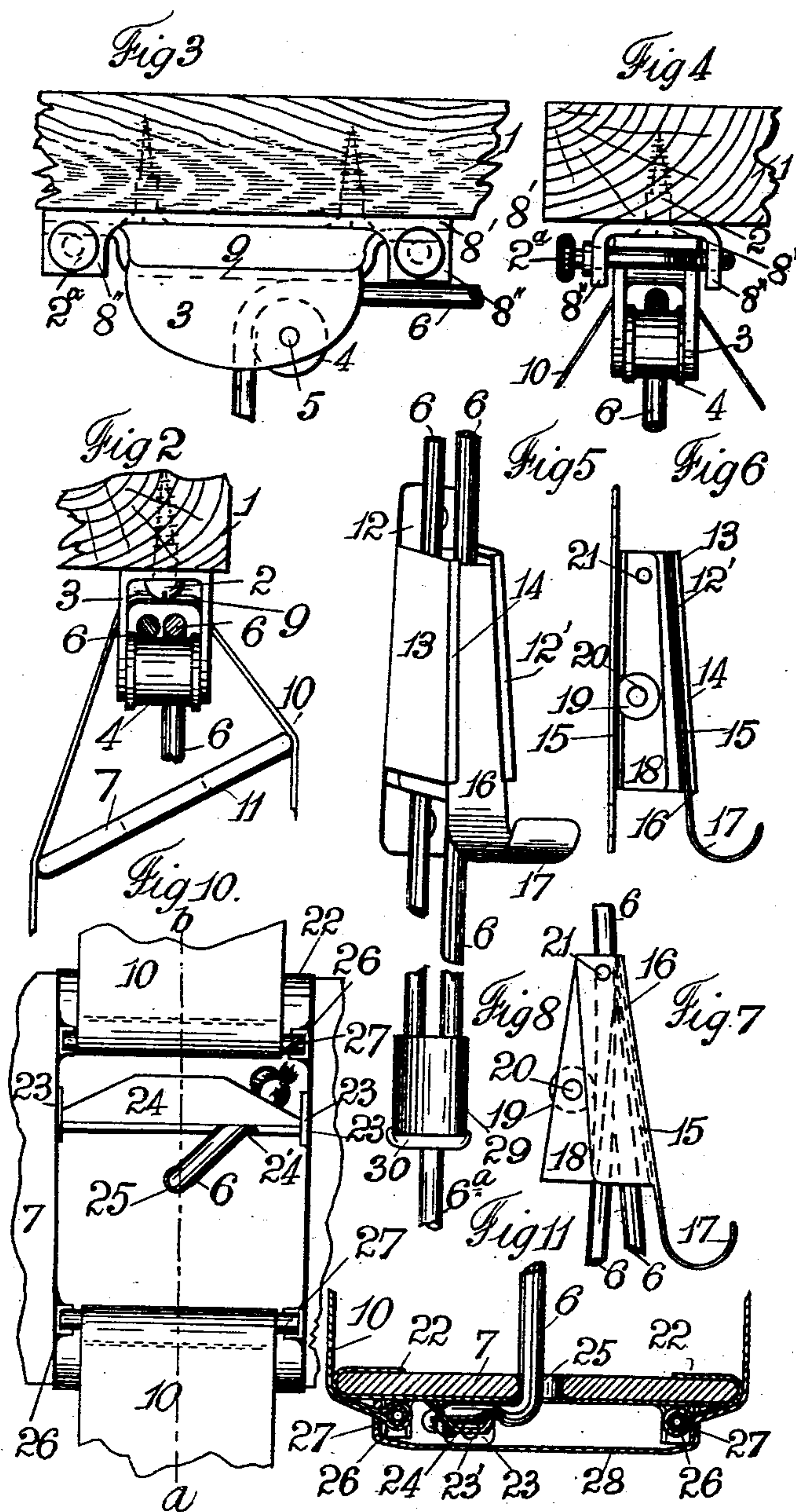
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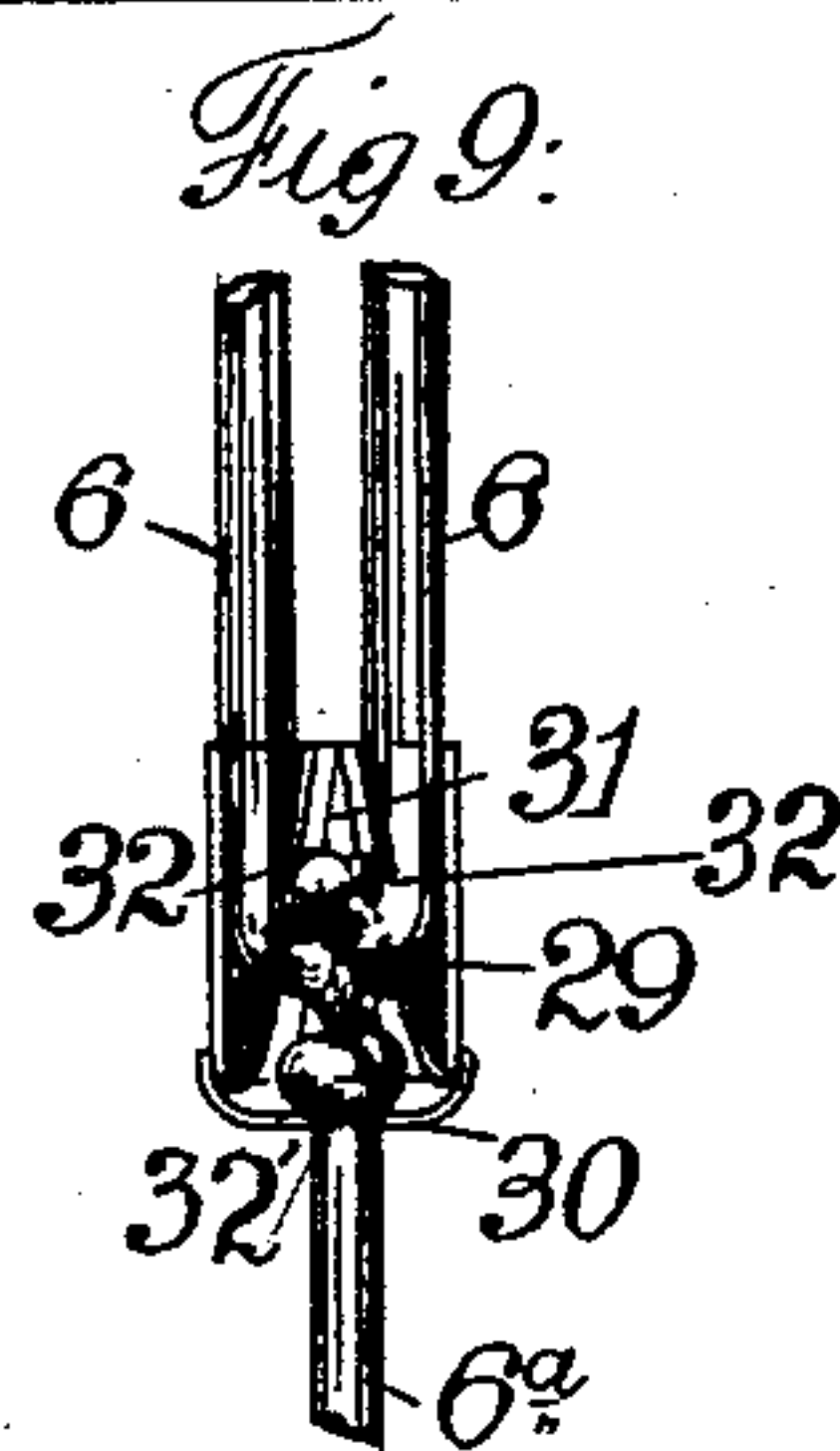
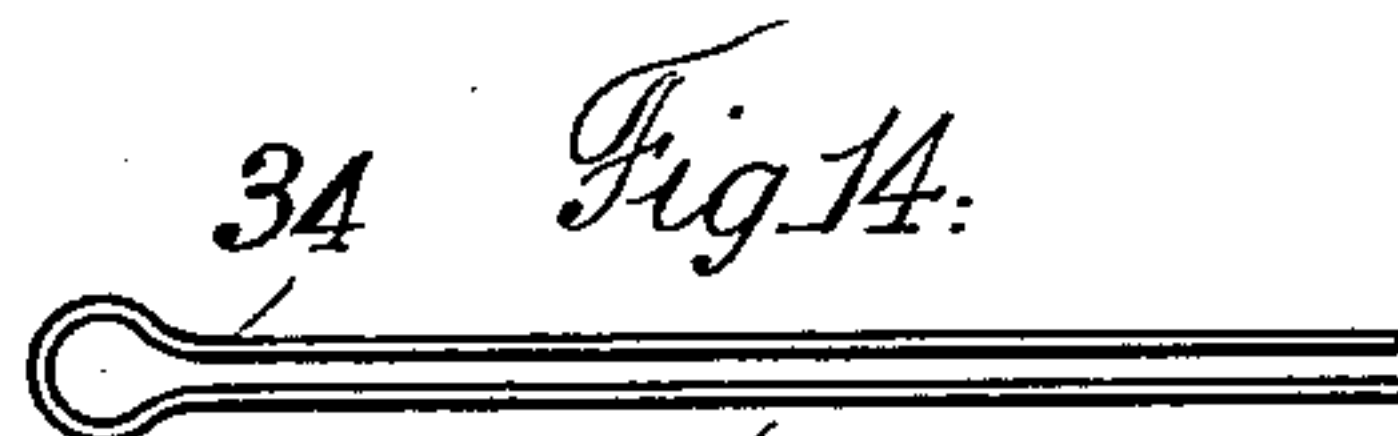
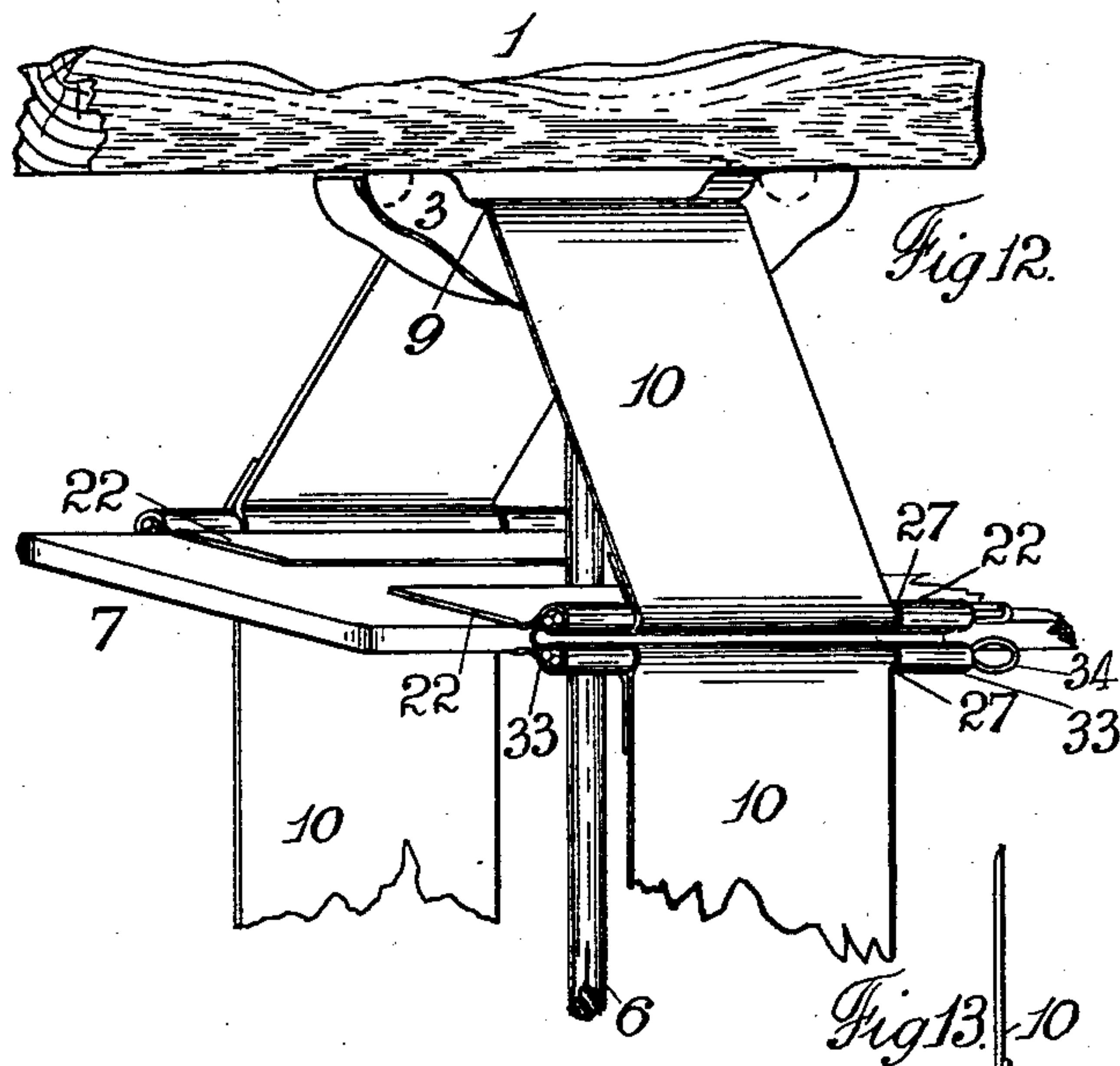
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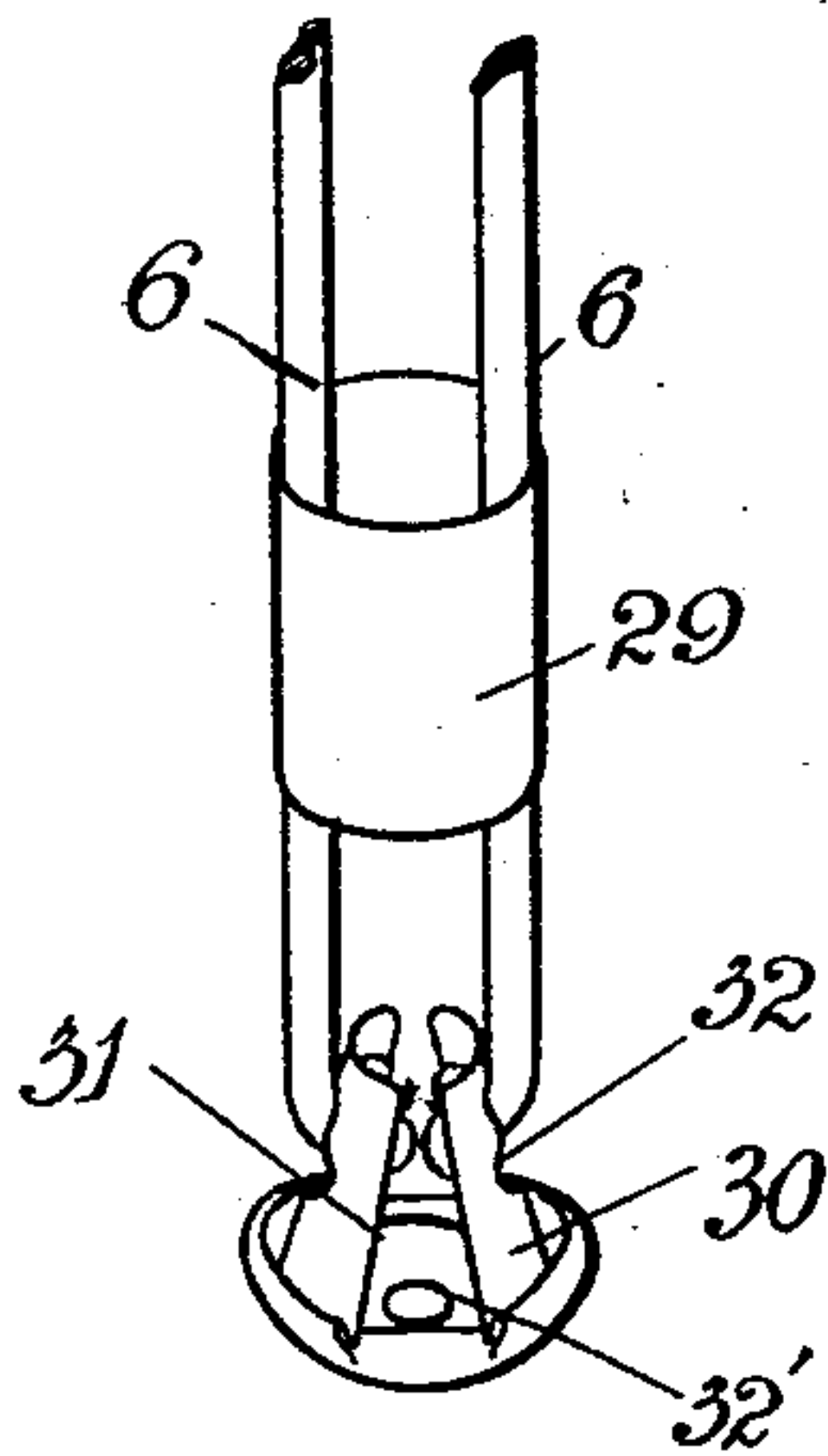
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L. GUNN.  
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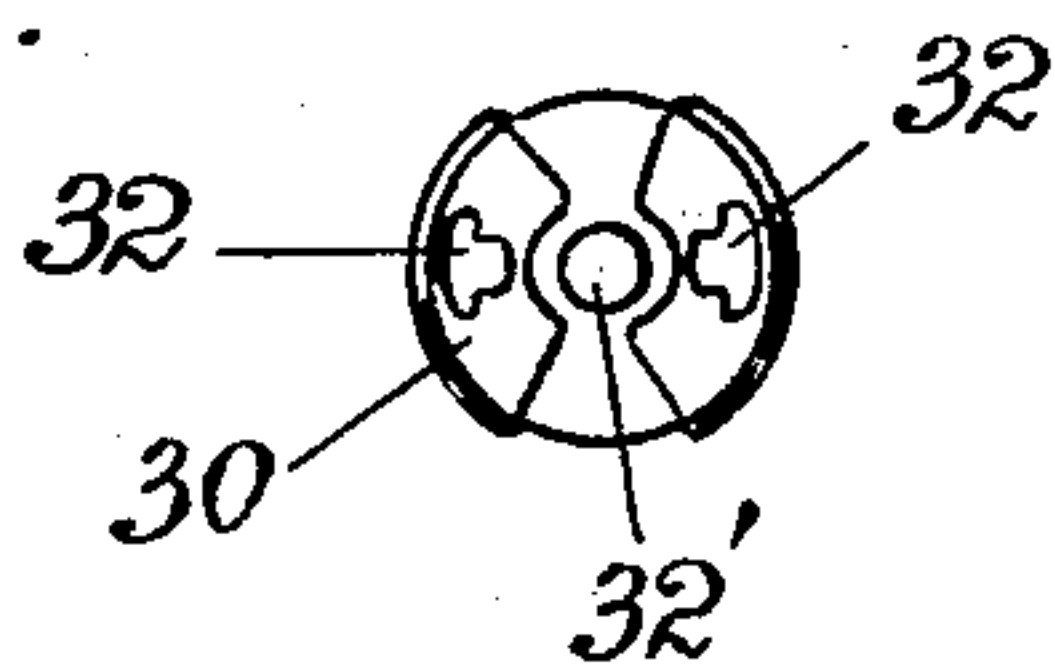
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*Fig 15.*



*Fig 16.*



Witnesses.

*Cheverance*  
*Wm S. Babcock.*

*Inventor*  
*Leonard Gunn*  
*per*  
*Wm S. Babcock*  
*Attorney.*



# UNITED STATES PATENT OFFICE.

LEONARD GUNN, OF LONDON, ENGLAND.

## VENETIAN BLIND.

SPECIFICATION forming part of Letters Patent No. 563,169, dated June 30, 1896.

Application filed January 10, 1896. Serial No. 574,965. (No model.)

*To all whom it may concern:*

Be it known that I, LEONARD GUNN, engineer, a subject of the Queen of Great Britain, residing at 4 Southampton Row, London, W. C., England, have invented new and useful Improvements in Venetian Blinds, of which the following is a specification.

My invention consists in improvements in Venetian blinds, the object I have in view being by the combination of interacting parts hereinafter described to operate the same in a more perfect manner than heretofore, and also to overcome the difficulties incident to erecting and removing such blinds from the window when constructed in the ordinary way.

The way and manner in which I carry out my invention will be readily understood by means of the drawings, in which—

Figure 1 is a general view showing the right-hand portion of a window and Venetian blind fitted with my invention. Fig. 2 is an end view of the supporting-bracket shown in Fig. 1. Fig. 3 is a front elevation of modified supporting-bracket. Fig. 4 is an end view of same. Fig. 5 is a perspective view of cord-adjuster and fastener. Fig. 6 is a vertical section of same. Fig. 7 is a side view of gripping device removed from shoe. Fig. 8 is a general view of device for fastening the ends of cords. Fig. 9 is a vertical section of same. Fig. 10 is a front view of interior of clip. Fig. 11 is a section on line *a b*, Fig. 10. Fig. 12 is a perspective view of clip for top lath; Fig. 13, an end view of tubular piece and tape; Fig. 14, a view of split pin. Figs. 15 and 16 represent, respectively, in side elevation and in plan view, the device for fastening the ends of the cords.

Fig. 1 is a general view of a Venetian blind, showing the disposition of the interacting parts. 1 is the window-frame, to which is secured, by screws, nails, or the like, 2, the supporting-bracket, which when referred to as a whole is represented by Fig. 3. This bracket (see also Fig. 2) is cast or stamped out of metal of suitable thickness, such as brass or iron. It is then fitted with a guide-roller 4, mounted on a pin 5. Over this roller pass the cords 6, used for raising and lowering the blind, and over the rounded portion

9 passes the tape 10, which by means of the ladders 11 support the laths 7 in the well-known manner. The cords 6 pass from the roller 4 to a similar roller 4, mounted in the side bracket 3, which, for easy removal, is fastened by metal screws 2' to the shoe 8, the ends of which, 8', are bent round, as shown. This shoe is permanently secured to the window-frame by wood screws 2. To tilt the laths, the cord 6' is tacked upon the uppermost lath 7.

It will be observed that the brackets 3, supporting the blind, are fastened direct to the window head or frame 1, the cords and rollers being in sight; and that I am thereby enabled to dispense with the loose blind-head in common use, which usually carries upon its upper side the guide and tape supporting rollers, and has always to be taken down to effect repairs.

The blind-cords 6 are led from the bracket 3' to the adjusting and fastening device, which when referred to as a whole is represented by Fig. 5. This (see Figs. 5, 6, and 7) consists of a thin metallic shoe 12', which is fastened by screws 2 to the frame 1. The sides taper upward, as at 13, Figs. 5 and 6, and are tapered upward and flanged over, as at 14. A strip of rubber 15 is preferably cemented upon one side of shoe 12' and upon the inner side of metallic frame 16. Within this shoe is a gripping device. This consists of a thin tapering metallic frame 16, the top of which is turned up, as at 17, to enable it to be readily withdrawn from the shoe. A channel-shaped piece of metal 18 is pivoted to the frame 16 by riveting, as at 21, and a rubber roller 19 is mounted on a pin 20. The cords 6 pass within the hollow space thus formed between the roller 20 and the rubber strip 15. (See Fig. 7.) To raise or lower the blind, the gripping-piece is pulled out from the shoe by means of the bent end 17. The cords 6 being held by the left hand and pulled to the left open the channel-shaped gripping-piece, which piece is slid along the cord until the laths are at the desired height. It is then pushed into the shoe, the tapering flanges 14 of which force the roller 19 and the cords 6 against the rubber strip 15, thereby holding them fast. The same effect is produced by drawing down the



gripping device in the shoe until the cords slip and then forcing the same into the shoe again when the desired point is reached.

I prefer to secure the tapes and cords to the bottom lath by the clip, (shown in Figs. 1, 10, and 11,) instead of nailing and knotting them in the usual manner. This clip is formed of a plate of thin metal, such as brass or tinned iron, the ends 22 being bent around the lath-  
 10 7, as shown. Extensions 23 are bent up on each side, and in holes 23', formed in these, is pivoted an L-shaped piece of metal 24, notched out as at 24'. This piece of metal when bent over into the position shown in  
 15 Figs. 10 and 11 securely holds the cord 6, which passes through the hole 25, formed in the clip and lath. Near each end two extensions 26 are bent upward and flanged sidewise, so as to form a seat for the tubular pieces 27,  
 20 to which the ends of the tapes 10 are stitched. A cover 28, formed also of thin metal, fits over the extensions 26. By turning upward the L-shaped piece the cords 6 are instantly released and the tapes 10 are liberated by re-  
 25 moving the tubular pieces 27 from their seats.

In Figs. 8, 9, 15, and 16 is shown a convenient device for fastening the cords 6 together side by side. This consists of an inner tubular-shaped piece 30, which may be bent up or  
 30 similarly formed out of thin metal. It is split or divided centrally, as at 31, and so shaped as to enter the outer case 29. Figs. 15 and 16 are slightly enlarged the better to show this detail. This case 29 sits upon and  
 35 is partly surrounded by the flange formed by bending up the bottom. Two holes 32, preferably of pear shape, are formed therein, and the cords 6 are passed through and knotted. A single cord 6<sup>a</sup> is then passed through a hole  
 40 32' in the flanged bottom.

In Fig. 12 I have shown a form of clip which may advantageously be used for holding the laths. It consists of two separate pieces of thin metal, such as tin, brass, or the like.  
 45 These are stamped, cast, or otherwise formed so as to clip the lath 7 on the upper and under side, as at 22, and at the same casting or stamping operation the eyes 33 are formed. A short piece of tape 10, each end of which is fitted  
 50 with a loop 27, fits in between these eyes and is secured on each upper side by the split pins 34. The loop of tape thus formed passes over the rounded portion 9 of the bracket 3. The remaining laths are upheld by the tapes  
 55 beneath, each of which tapes is fitted with a tubular piece 27 and secured by split pins 34.

Figs. 3 and 4 show a modified form of supporting-bracket 3. The shoe 8' is stamped out of thin metal and has two lugs 8'' on each  
 60 side and is permanently secured to the window-frame 1 by screws. The bracket 3, hav-

ing only one cord, is that on the left side of the window. It is formed of thin metal fitted with a guide-roller 4, and drops into the lugs 8''. The lugs are punched or drilled and  
 65 threaded on one side. Into the hole thus formed passes a threaded pin having a milled head 2<sup>a</sup>. This holds the bracket 3 in position, from which it can be readily removed by withdrawing the pin.

By means of the combination described the blind may be taken to pieces and set up again in a few moments, the various parts coöperating and interacting in such a man-  
 75 ner as to enable this and the operations of raising, lowering, and fastening to be readily effected.

I claim—

1. In combination with the blind-cords, a shoe having tapering sides, a tapering frame  
 80 within the said shoe, a gripping-piece pivoted to the said frame, and a roller carried by the said gripping-piece, the cords being arranged to pass between the said roller and the opposite inner face of the shoe and being released  
 85 by drawing said gripping-piece out of the shoe and clamped by forcing it into the same substantially as set forth.

2. In a cord-holding device the combination of an inner tubular piece 30, bent up and split  
 90 as at 31 to receive the ends of the cords with an outer case 29 adapted to receive the said piece 30 within it as set forth.

3. The combination with a Venetian blind of the clip with bent ends 22 embracing laths  
 95 7, the L-shaped piece 24 pivoted in extensions 23, and having a notch 24' for gripping and readily releasing the operating-cord, the seats 26, formed as described, fitted with a cover 28, and the tubular pieces 27 mounted therein  
 100 and secured by stitching to the tapes 10.

4. The combination with a Venetian blind of the supporting-clip formed with the eyes  
 105 33 from one piece of metal, the terminal loops 27 for connecting the tapes 10, and the split pins 34 for holding said pieces in position by means of the eyes 33.

5. In combination with the cord-pulley and the guiding-bracket in which it is journaled  
 110 the shoe 8' which is bent over the edges of the base of the said bracket to hold the same, additional means of attaching these parts together and fastenings for securing the said shoe to the window-frame or other permanent structure substantially as set forth.

In testimony whereof I have set my hand in presence of two witnesses.

LEONARD GUNN.

Witnesses:

FRANCIS HERON ROGERS,  
 T. SMITH.