

(No Model.)

G. O. WICKERS.
CYLINDER FOR CARDING MACHINES, &c.

No. 405,234.

Patented June 11, 1889.

Fig:2.

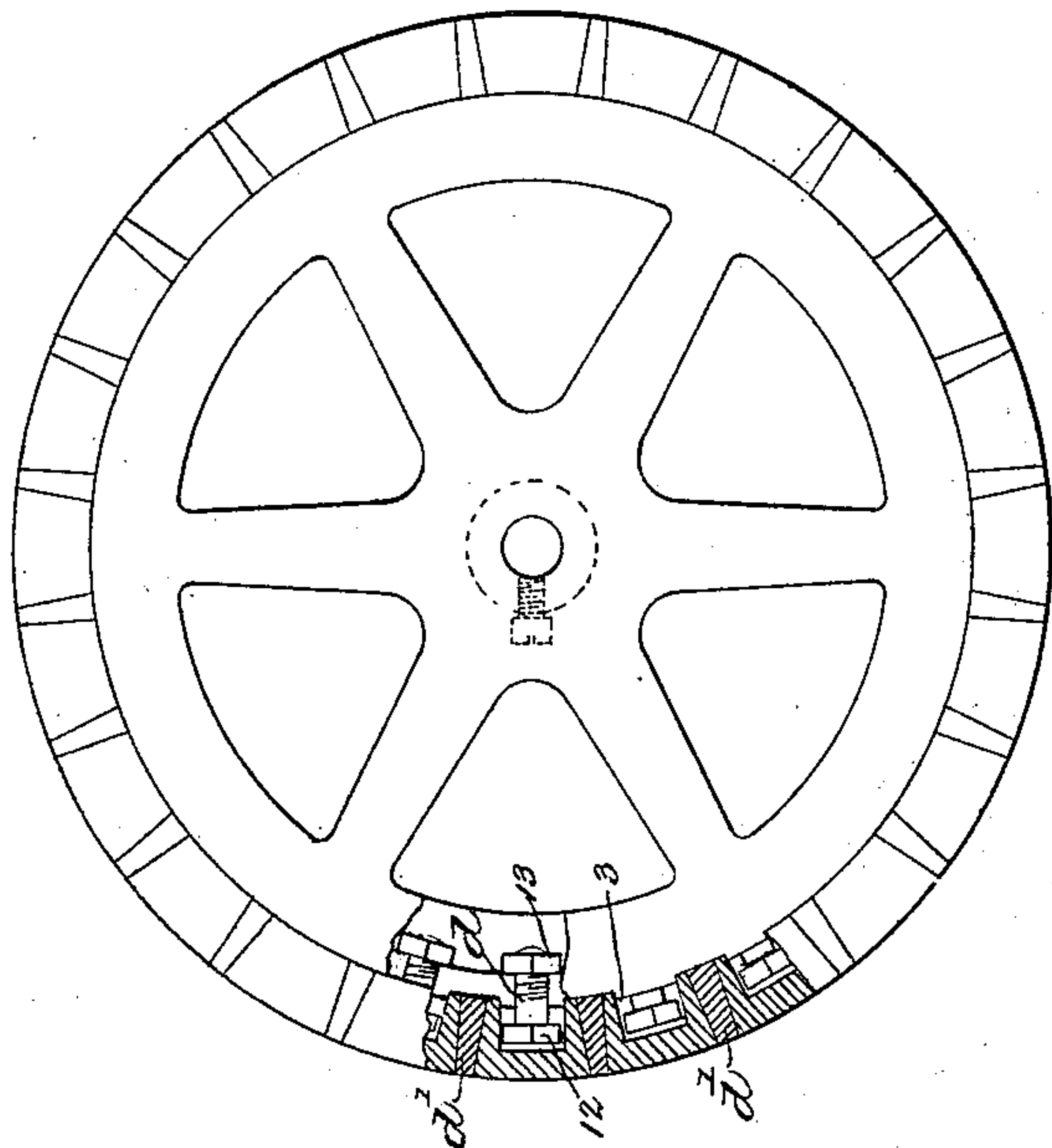


Fig:1.

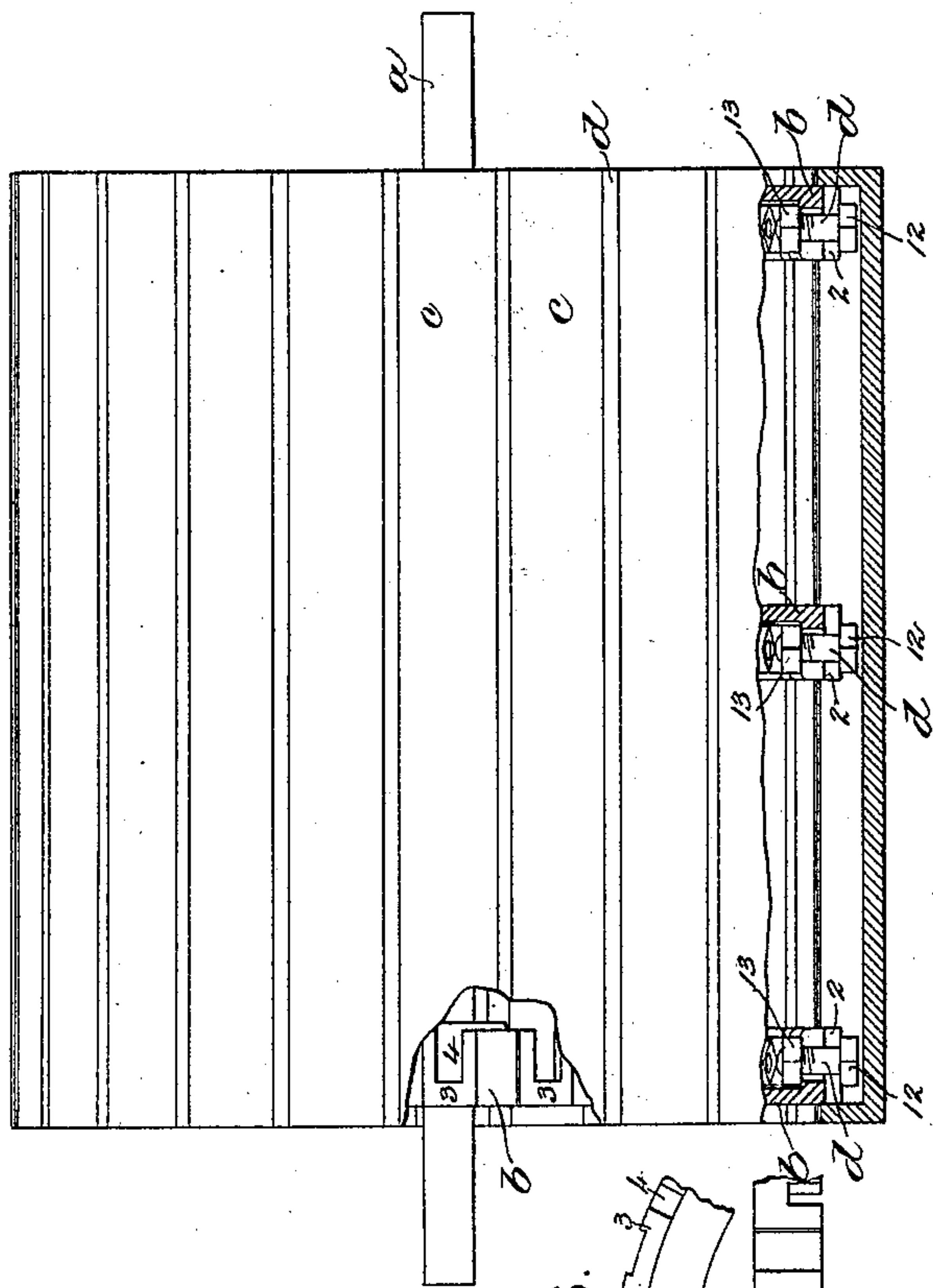


Fig:6.

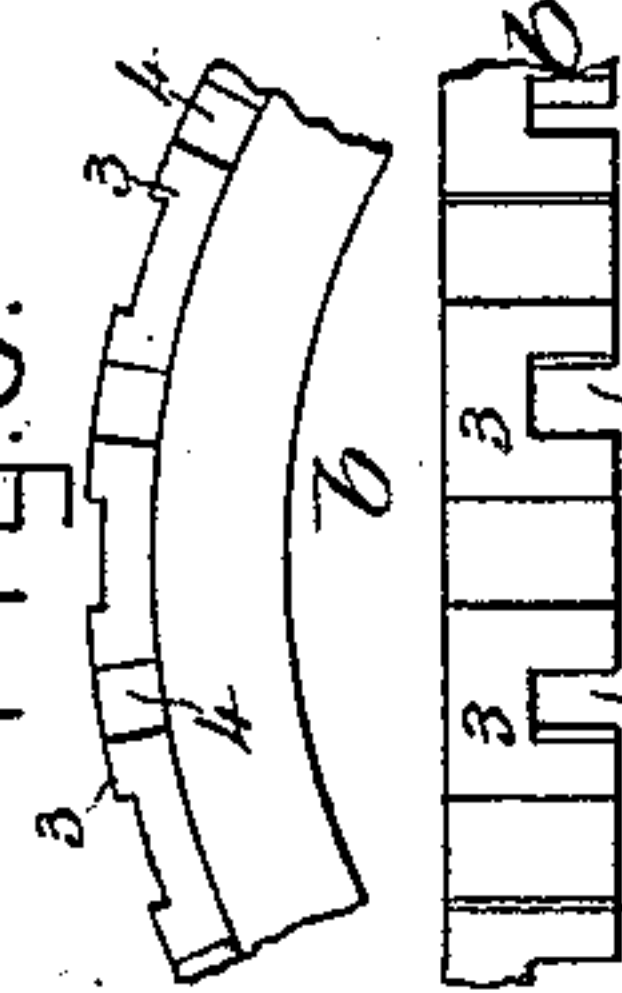


Fig:5.



Fig:4.

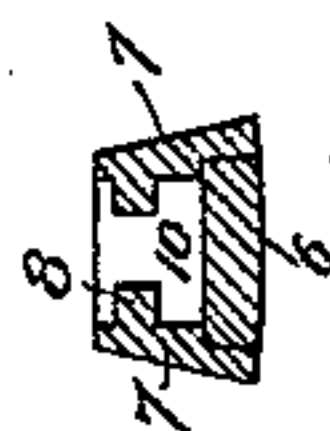


Fig:3.

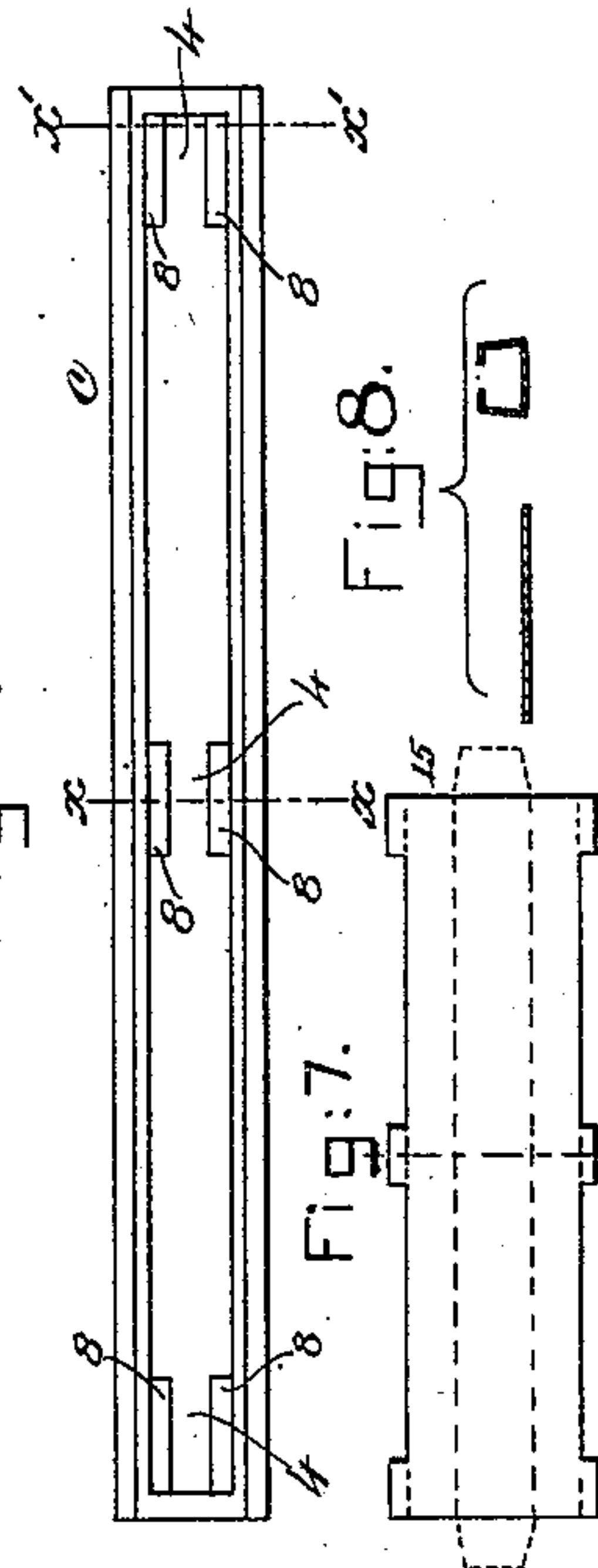


Fig:8.

Fig:7.

Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE O. WICKERS, OF LAWRENCE, ASSIGNOR TO THE DAVIS & FURBER
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CYLINDER FOR CARDING-MACHINES, &c.

SPECIFICATION forming part of Letters Patent No. 405,234, dated June 11, 1889.

Application filed July 30, 1888. Serial No. 281,396. (No model.)

To all whom it may concern:

Be it known that I, GEORGE O. WICKERS, of Lawrence, county of Essex, State of Massachusetts, have invented an Improvement in
5 Cylinders for Carding-Machines, &c., of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention has for its object to improve the construction of cylinders used in carding and other machines containing cylinders supplied with card-clothing.

15 In accordance with my invention the cylinder is made up of a series of spiders having flanges, and of a series of substantially hollow metallic lags, the latter being bolted to the spiders.

20 As herein shown, the lags have pockets, and the flanges of the spiders have openings or recesses for the reception of bolts by which to unite the parts, and as shown in this embodiment of my invention the metallic lags are alternated with non-metallic strips or portions, in which may be driven the tacks or
25 nails employed to secure the usual card-clothing to the surface of the cylinder.

My improved cylinder has great strength and durability as compared with other card-
30 ing-cylinders heretofore known to me, and the lags being made hollow or flanged, as will be described, makes it possible to reduce their weight, so that they are not objectionable in that direction.

35 My improved lags are composed of flanged plates.

My invention consists, essentially, of a shaft, the attached spiders, the metallic lags having beveled sides, and means to connect the lags
40 to the spiders, combined with wedge-shaped nail-holding strips inserted in spaces between the adjacent lags and held between them by the said beveled sides of the lags, substantially as will be described.

45 Other features of my invention will be pointed out in the claims at the end of this specification.

Figure 1, in front elevation partially broken out, represents a cylinder embodying my in-
50 vention. Fig. 2 is an end elevation of the

cylinder shown in Fig. 1, partially broken out, however, to better show the construction of parts. Fig. 3 is an under side view of one of the lags. Figs. 4 and 5 are respectively sections of Fig. 3 in the line $x x'$; and Fig. 6 is a
55 perspective detail of portions of one of the spiders, to better show its shape. Figs. 7 and 8, on a smaller scale, show a modified form of my invention to be described.

The shaft a' , as herein shown, has fixed to
60 it three spiders b , having flanges 2, the outer portions of the said flanges having raised projections 3, (see Figs. 1 and 6,) which are slotted, as at 4. The lags c are of metal and
65 hollow, so as to constitute a shell having flanges, as best represented in Figs. 4 and 5, the outer face 6 of each lag being slightly convex, the outer sides of the flanges 7 being
70 tapering and at suitable distances apart. The said lags at their interior have lugs or projections, as 8, to leave between them and the outer portions of the lags, pockets, as 10, (see
75 Figs. 4 and 5,) for the reception of the heads 12 of suitable bolts d , the bodies of which enter the slots 4, nuts 13, screwed upon the said
bolts below the said flanges b , causing the bolts to thus securely but detachably fasten
the metallic lags to the spiders.

The metallic lags shown in Figs. 1 and 3 are supposed to be made of cast metal; but
80 they may be made from sheet-metal blanks of the shape shown on a smaller scale in Fig. 7, the same being bent into the form represented in Fig. 8, said lags being opened at the end; but, if desired, the sheet-metal blanks may
85 have projections 15, as represented by dotted lines, Fig. 7, to constitute end pieces for the lags.

Between the metal lags and alternating with them I have secured to the cylinder nail-
90 holding strips, as d' , into which may be driven nails usually employed to confine the usual card-clothing to the periphery of the cylinder. In practice these nail-holding strips d' will be
95 composed of wood, and, as herein shown, the strips are of wedge shape in cross-section to fit the wedge-shaped or inclined or beveled sides of the metallic lags, the latter acting to hold the strips d' in position. When the metallic lags are applied to the spiders, the open
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under sides of the lags fit the projections 3 of the spiders, the said projections preventing the lags twisting out of place.

I claim—

5 1. The shaft and its attached flanged spiders, having projections 3 and openings 4, combined with the hollow metallic lagsshaped to embrace the said projections, and having pockets, and with bolts to confine the said
10 lags to the said flanges, substantially as described.

2. The spiders, the metallic lags having tapered or beveled sides, and means to con-

nect the lags to the spiders, combined with wedge-shaped nail-holding strips inserted in 15 spaces between the sides of the adjacent lags, and held therein by the said beveled sides of the lags, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two sub- 20 scribing witnesses.

GEORGE O. WICKERS.

Witnesses:

CHAS. E. STILLINGS,
OSCAR M. GODFREY.