

**No. 685,629.**

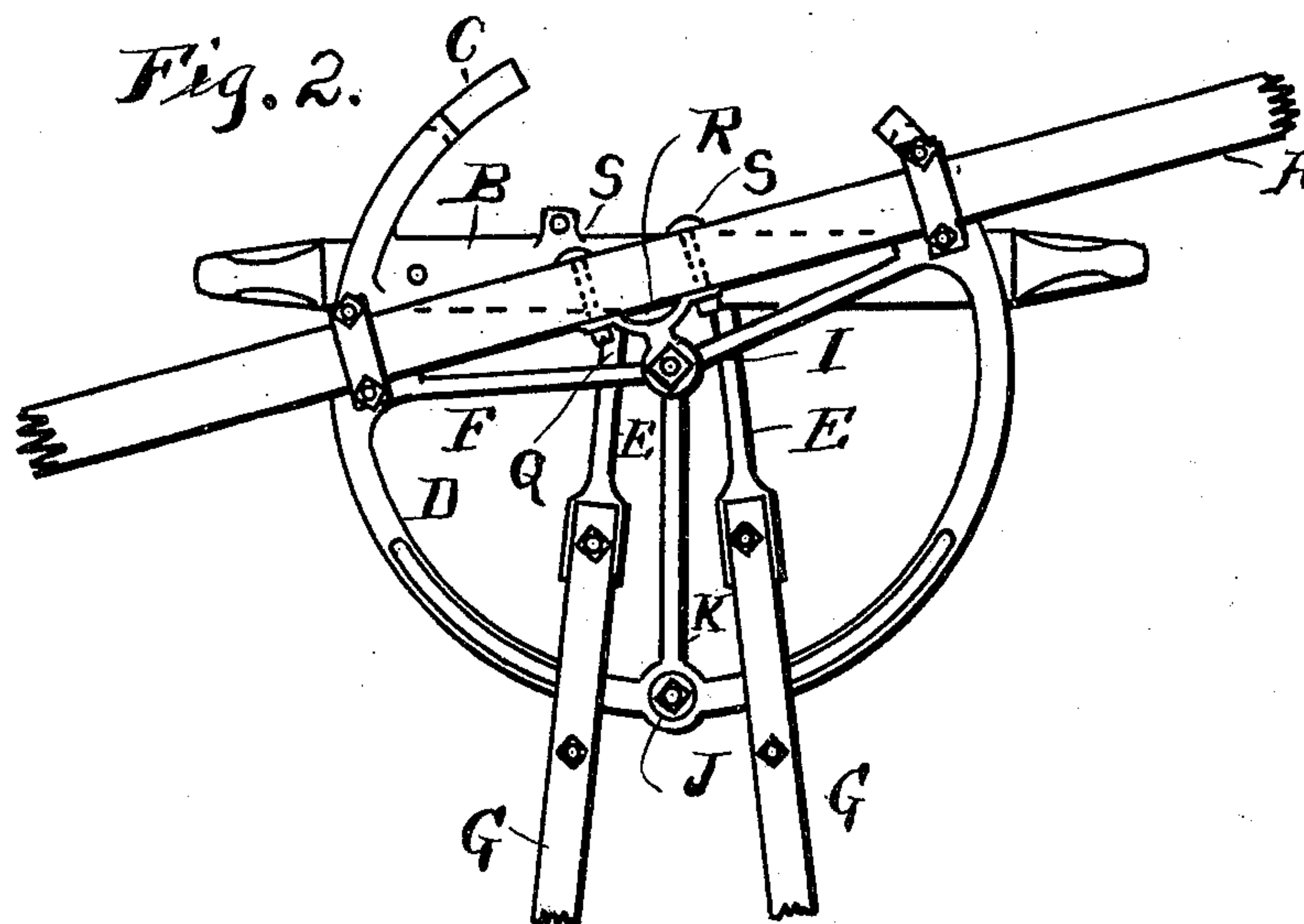
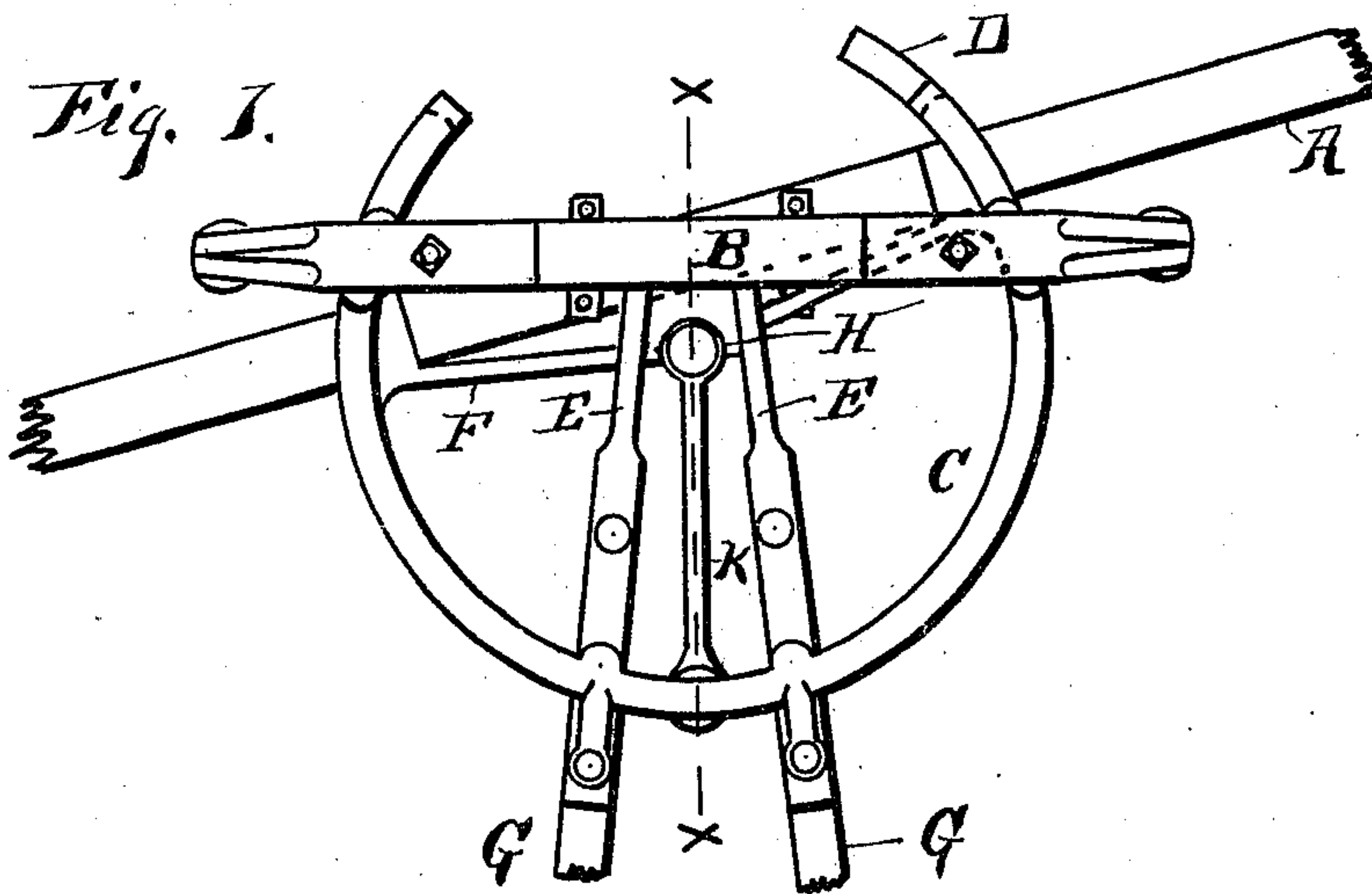
**Patented Oct. 29, 1901.**

**J. McLAUGHLIN.**  
**FIFTH WHEEL.**

(Application filed Feb. 9, 1900.)

(No Model.).

**2 Sheets—Sheet 1.**



WITNESSES.

Harry J Perkins.  
James B. Davies.

INVENTOR.

James McLaughlin

BY          ATTORNEY.

Edward Taggart

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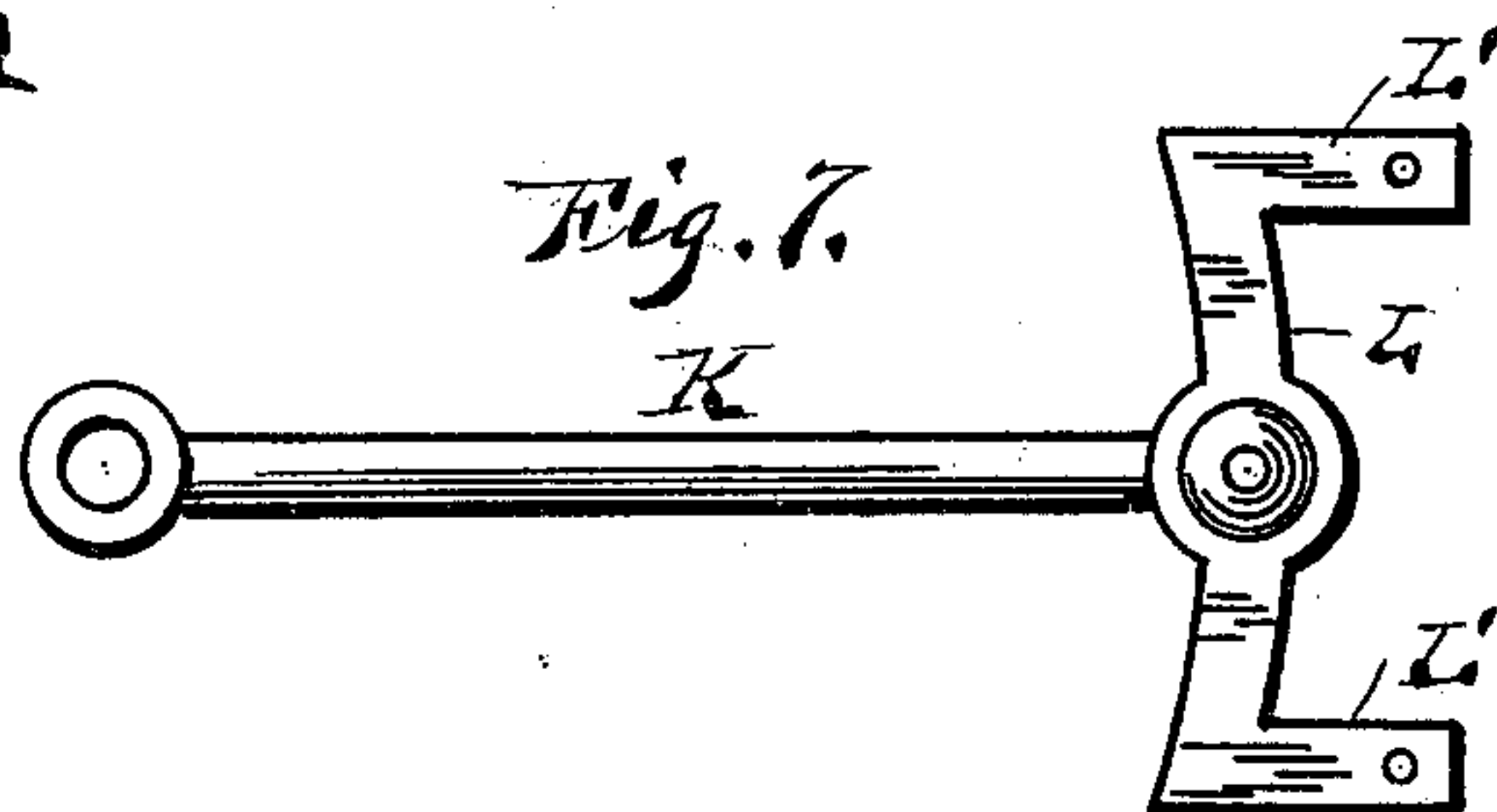
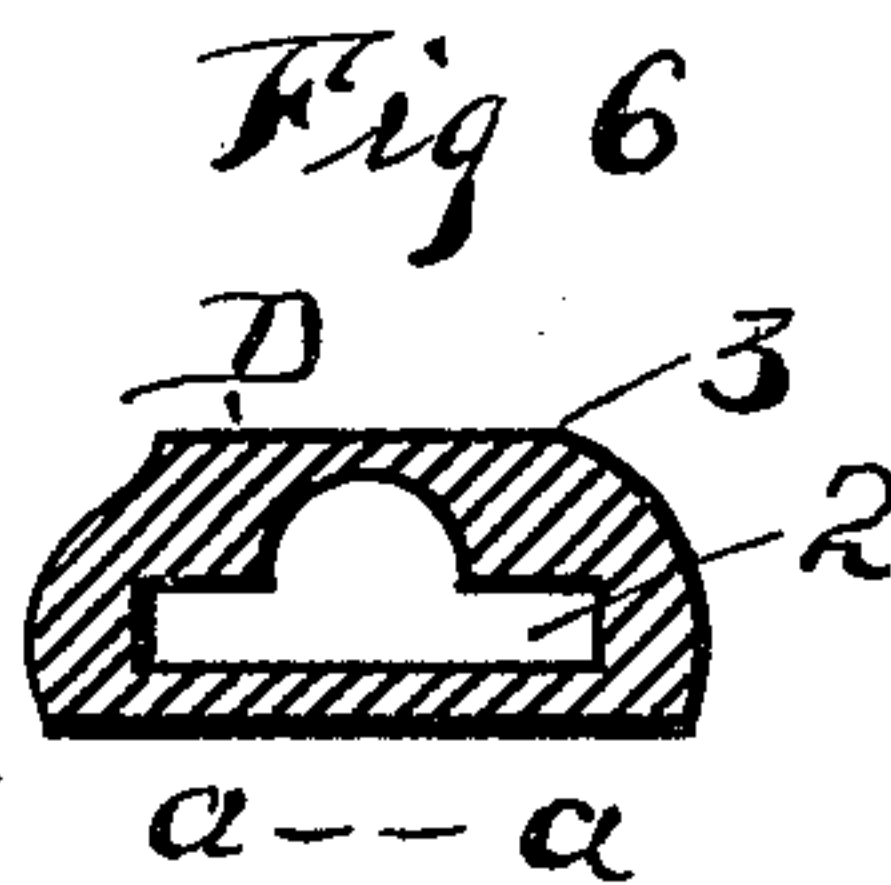
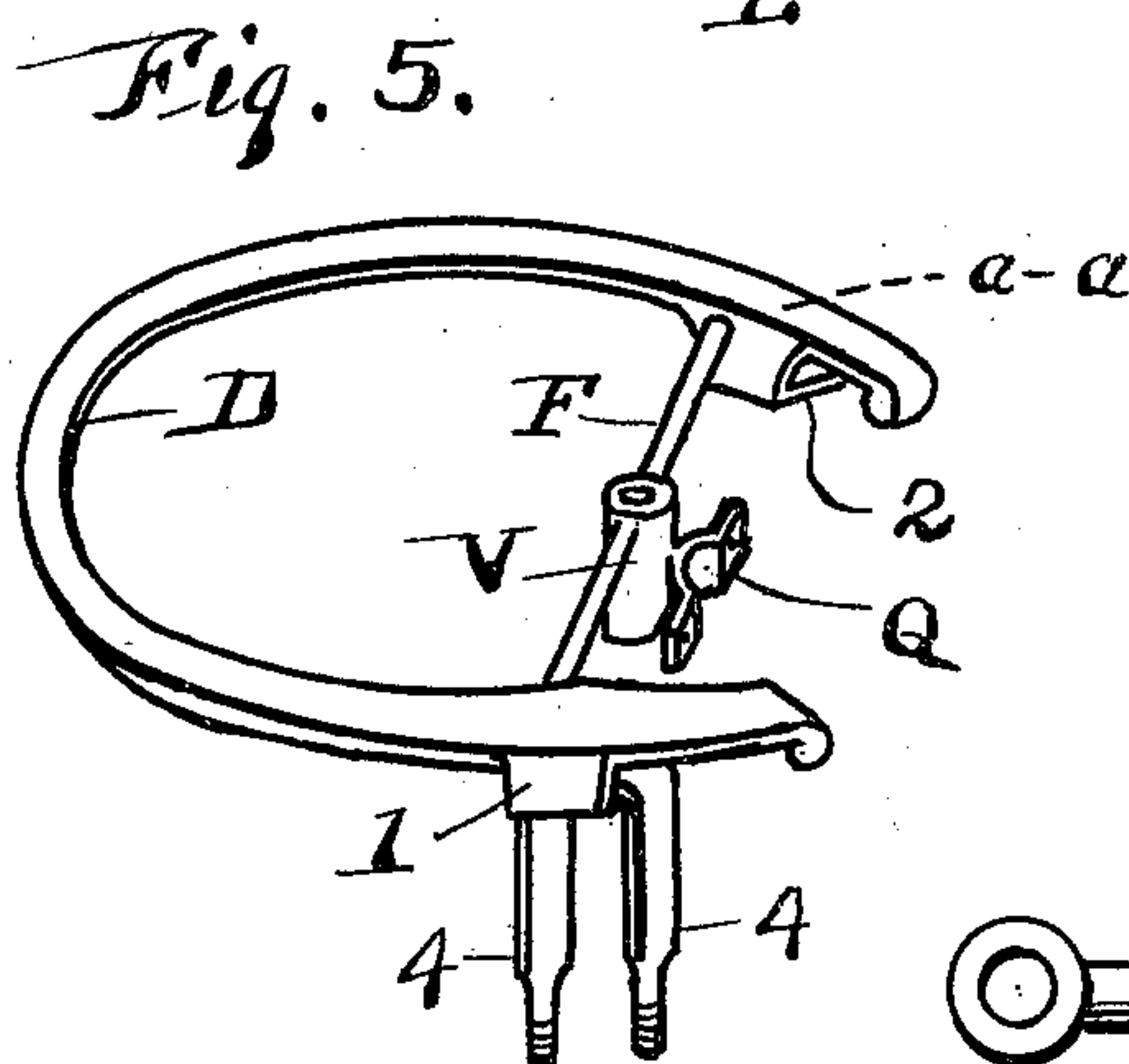
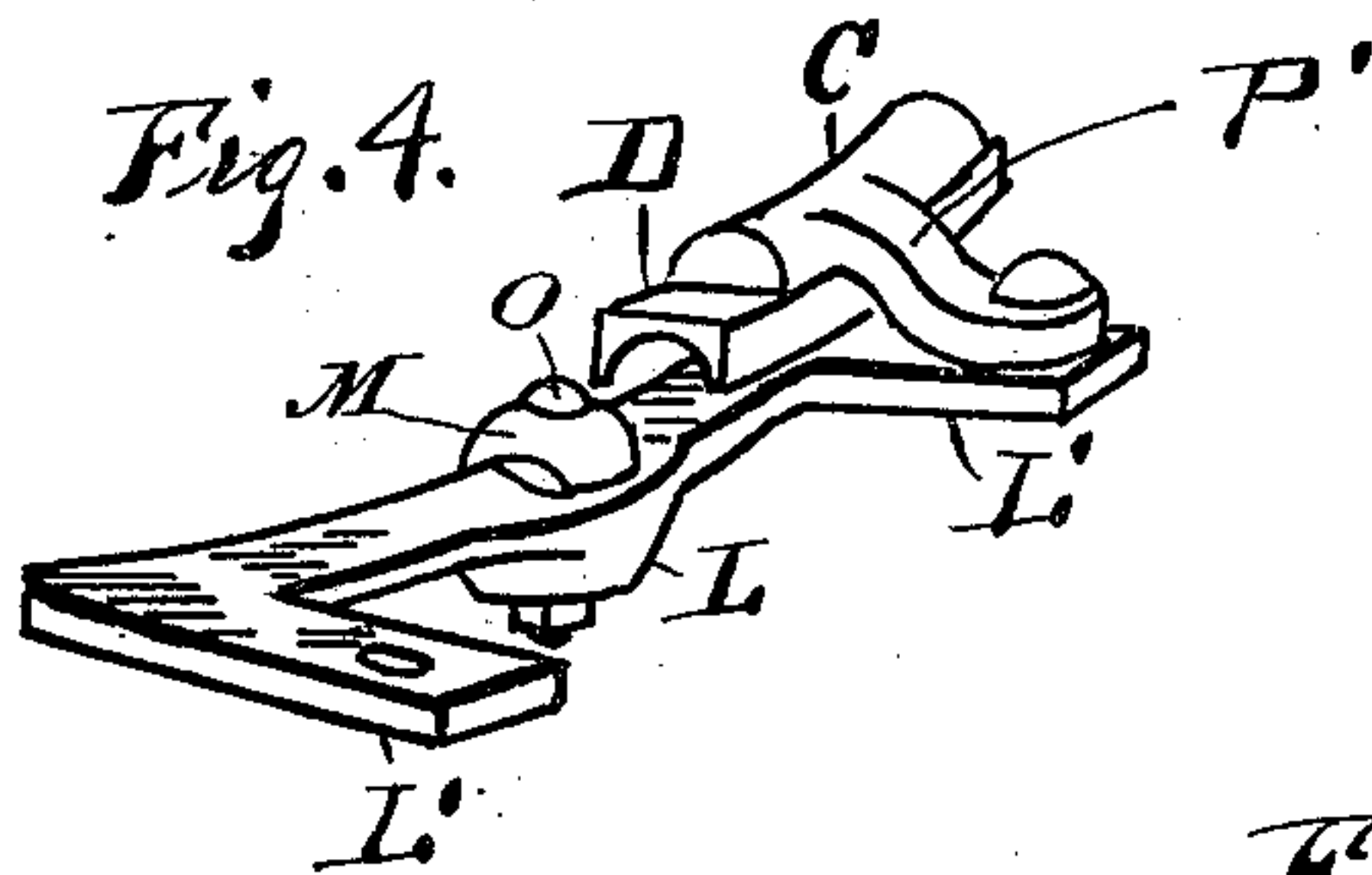
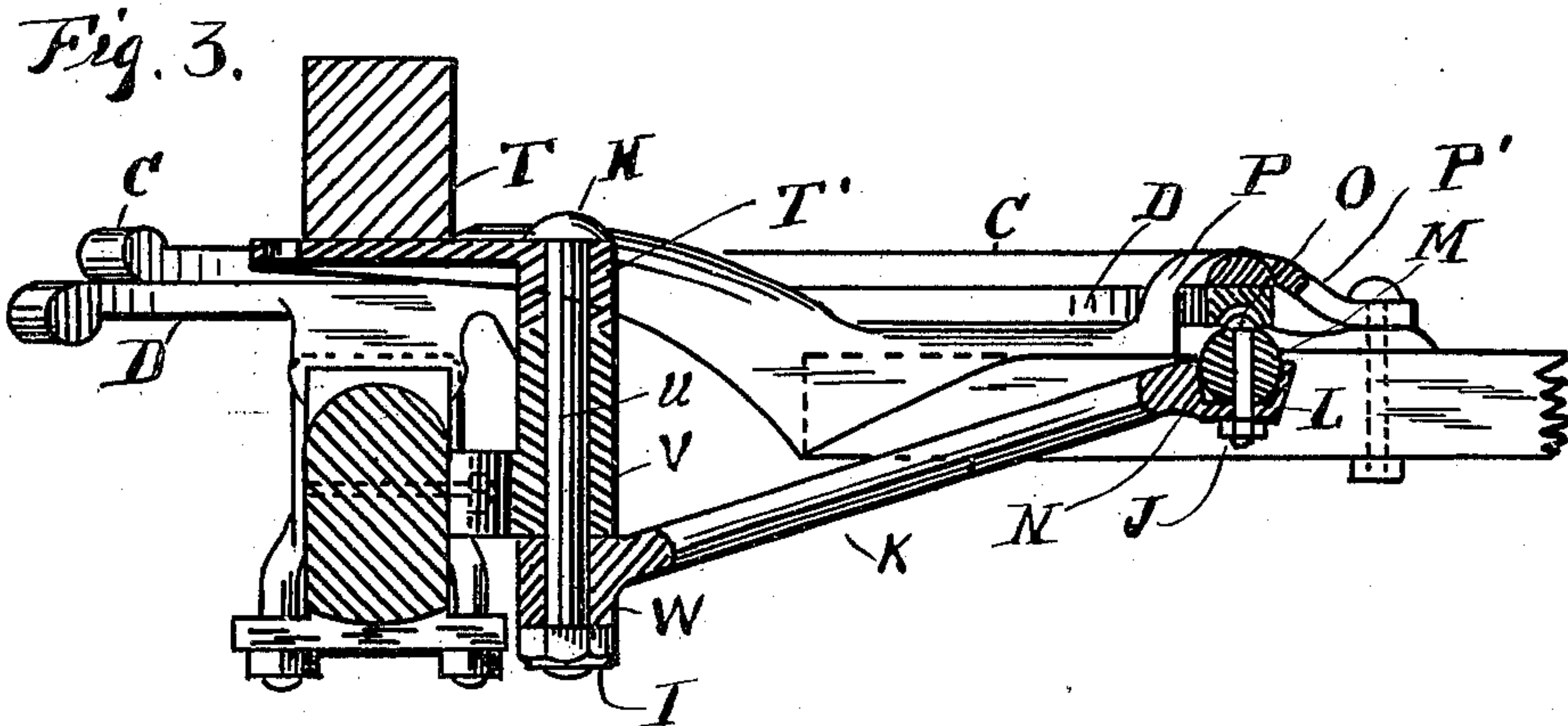
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WITNESSES

Harry J. Perkins  
James B. Davies

**INVENTOR.**

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# UNITED STATES PATENT OFFICE.

JAMES McLAUGHLIN, OF OVID, MICHIGAN.

## FIFTH-WHEEL.

SPECIFICATION forming part of Letters Patent No. 685,629, dated October 29, 1901.

Application filed February 9, 1900. Serial No. 4,691. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES McLAUGHLIN, a citizen of the United States, residing at Ovid, in the county of Clinton and State of Michigan, have invented new and useful Improvements in Fifth-Wheels, of which the following is a specification.

This invention relates to certain new and useful improvements in fifth-wheels for vehicles; and it consists, first, in the new and novel construction of the upper and lower members of the fifth-wheel hereinafter described; second, in the combination between the lower member and the brace connecting the king-bolt with the perches and with the upper circle in such a manner that the upper circle and the upper perch-irons combine with the king-bolt in connecting together the parts, so as to receive the strain caused by the draft on the front axle; third, in so adapting the king-bolt sleeve to the axletree as to leave an opening or space for the use of a clip for securing and strengthening the axle and bed; fourth, in the new and novel method of securing the lower circle to the axle; fifth, in the new and novel method or device for preventing rattling of the upper and lower circles of the fifth-wheel, and, sixth, in the various other novelties of construction hereinafter described and particularly pointed out in the claims.

The objects of my invention are, first, to construct a fifth-wheel of the fewest number of parts consistent with strength and durability; second, to cheapen the construction; third, to dispense with the lower perch-irons and to increase the efficiency by utilizing the upper perch-irons in receiving the strain or part of the strain caused by the moving of the vehicle; fourth, to furnish a simple and efficient means for attaching the lower circle or lower member to the axle; fifth, to provide an antirattler which will always work efficiently and will have little or no tendency to get out of repair, and, sixth, various other objects more fully described, and pointed out in the specification and claims. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the fifth-wheel constructed in accordance with my invention attached to the front axle and bolster or

spring-bar of the vehicle. Fig. 2 is an inverted plan view showing the underside of the fifth-wheel, the axle, and spring-bar. Fig. 3 is a longitudinal vertical sectional view on line *xx* of Fig. 1. Fig. 4 is a front perspective view, partially in section, designed to show the antirattler and its connection with the brace and lower member of the fifth-wheel. Fig. 5 is a perspective view of the lower circle with the attaching-clip, which clip attaches the lower circle to the axle. Fig. 6 is a sectional view of the lower circle and projection or enlargement which comes in contact with the axle. Fig. 7 is a detached view of the brace K with the cross-brace L and its lugs L' L', the whole being constructed in one piece.

Similar characters refer to similar parts throughout the several views.

A is the front axle of the vehicle.

B is the spring-bar or bolster, which is secured to the upper circle.

C is the upper circle of the fifth-wheel, secured to the bolster in any suitable manner.

D is the lower circle secured to the axle, as hereinafter described.

E and E are the perch-irons, and G and G are the perches. The perch-irons are made integral with the upper circle and are provided with an upward extension, forming a shoulder P, adapted to prevent the lower circle from being drawn out of place, as hereinafter described. Extending in a line with the perch-irons E E are projections P' P'.

T is a web connecting the front ends of the perch-irons and provided with an eye T' for the reception of the king-bolt. The web T preferably extends across so as to connect the two sides of the upper circle and form a plate beneath the spring bar or bolster.

It will be noted that the upper circle C, the web T, the perch-irons E and E, with the lugs P' P', all are cast in a single piece.

F is a cross-brace extending across the lower circle and made integral therewith. Integral with this brace F is a sleeve V.

K is the king-bolt brace, provided with an eye W.

U is the king-bolt, provided with a head H. The king-bolt passes through the eye T' of the web T, through the sleeve V and the eye W, and is secured at the bottom by the nut I.

The king-bolt brace K has a T-shaped ex-



tension L at its rear end and also the lugs L' L', all constructed in one piece. The parts L' L' rest upon the upper surface of the perches and are secured thereto by means of the bolts passing through the lugs P' P', the lugs L' L', and the perches, as shown in Fig. 3. The cross-piece L is between the lower circle and the perches. In the piece L, I provide a recess or depression for the receipt of the spring M, which spring is preferably of rubber, but may be constructed of any suitable material. Through this spring I provide a bolt O, as shown in Figs. 3 and 4. The upper end of the bolt O engages with the groove in the lower surface of the lower circle. This bolt is held in position by means of the nut J, and the spring may be adjusted so as to give greater or less pressure upon the circle always in contact and preventing all rattling.

Q is a plate connecting the sleeve V to the axle. This connection may be made by bolts or clips. This eye-plate is so constructed as to leave an opening R, which opening is shown in Fig. 2 and is between the bolts S S. The object of this opening R is to allow for the insertion of a clip, binding together and strengthening the axle and axle-bed.

In Fig. 5 the lower circle D is shown provided with an integral clip-attaching device 1, preferably in the form of a stirrup, which bears on the upper surface of the axle A. This clip-attaching device 1 has an opening 2 therein, provided with a groove 3 in the upper portion thereof. The object of this grooved opening 2 is to permit the insertion of a clip 4, the groove 3 providing room for the passage of the round portion of the clip. The broader portion of the clip after it has been inserted rests in the opening 2. The clip is then bent into the form shown in Fig. 5 and a keeper is applied to the lower ends thereof, which lower ends are provided with screw-threads for the purpose of holding the attaching-nuts.

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

1. In a fifth-wheel for vehicles, the combination with the lower circle of an upper circle having rearwardly-projecting lugs, upper perch-irons and a web connecting the said perch-irons at the front end, provided with a king-bolt eye; said circle, lugs and web all cast in one piece; perches, and suitable means for attaching the circle and perch-irons to said perches, substantially as described.

2. In combination with an upper circle and

perch-irons having a web at their front end, said web provided with a king-bolt eye, a shoulder P at the rear ends, and king-bolt brace provided with a cross piece or brace L adapted to rest against said shoulders and a lower circle passing above the cross-piece L and beneath the upper circle.

3. The combination with an upper circle, perch-irons having a web at their front ends provided with an eye, and shoulder P, at their rear ends a connecting-bolt brace K, having a cross strip or brace L engaging with the shoulders of the perch-irons, rearwardly-projecting lugs L' L', rearward projections P' P' on the upper circle, bolts passing through the projections P' and the lugs L', and lower circle passing between the cross-brace L and the upper circle.

4. The combination with the upper circle having perch-irons integral therewith, and web at the front of said perch-irons, a king-bolt eye therein, shoulders at the rear end of said perch-irons, rearward projections P' P' integral with the upper circle, and a lower circle having the integral brace F and king-bolt sleeve V, a king-bolt brace K, having an eye at its front end, and a cross-piece L at its rear end and integral lugs L' L', a king-bolt passing through the eye in the web-sleeve V and the eye W, substantially as described.

5. In a fifth-wheel, the combination of an upper circle having perch-irons integral therewith, a lower circle provided with a brace, said brace having a king-bolt sleeve therein, a king-bolt, and a king-bolt brace adapted to connect the lower end of said king-bolt with the perch-irons above the perches.

6. In combination with a lower circle of the fifth-wheel, a brace K having a cross brace or piece L, resting upon the perches, a depression in the cross-piece below the lower circle, a spring in said depression and a bolt held in contact with the under surface of the lower circle.

7. The combination of the lower circle of the fifth-wheel, a king-bolt brace K, having a cross-piece L, a depression in the cross-piece, a groove in the under side of the lower circle, a bolt having a bearing in said groove, and a spring holding the bolt in contact with said groove.

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

JAMES McLAUGHLIN.

Witnesses:

ELIZABETH J. PHILLIPS,  
EDWARD TAGGART.