

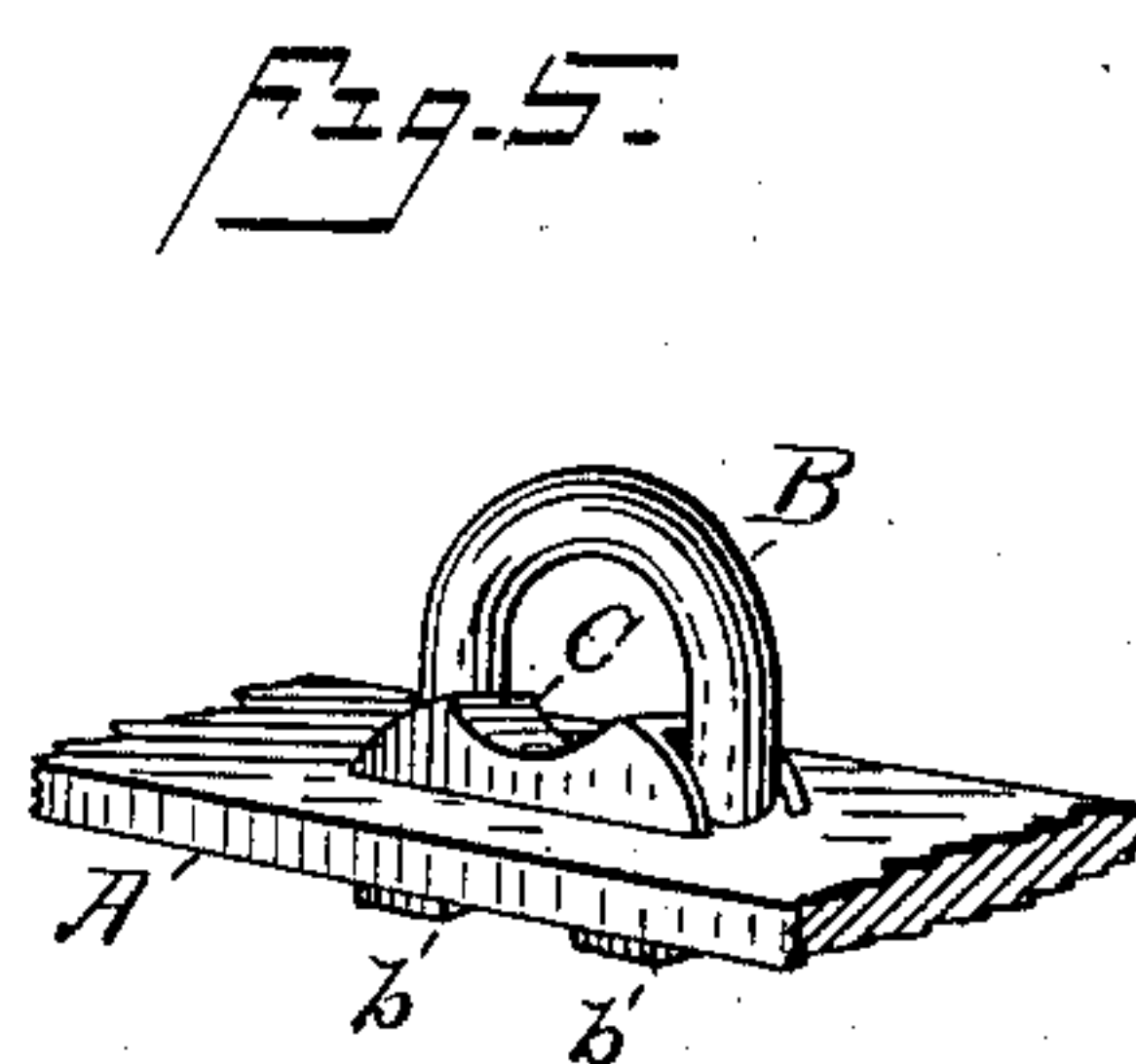
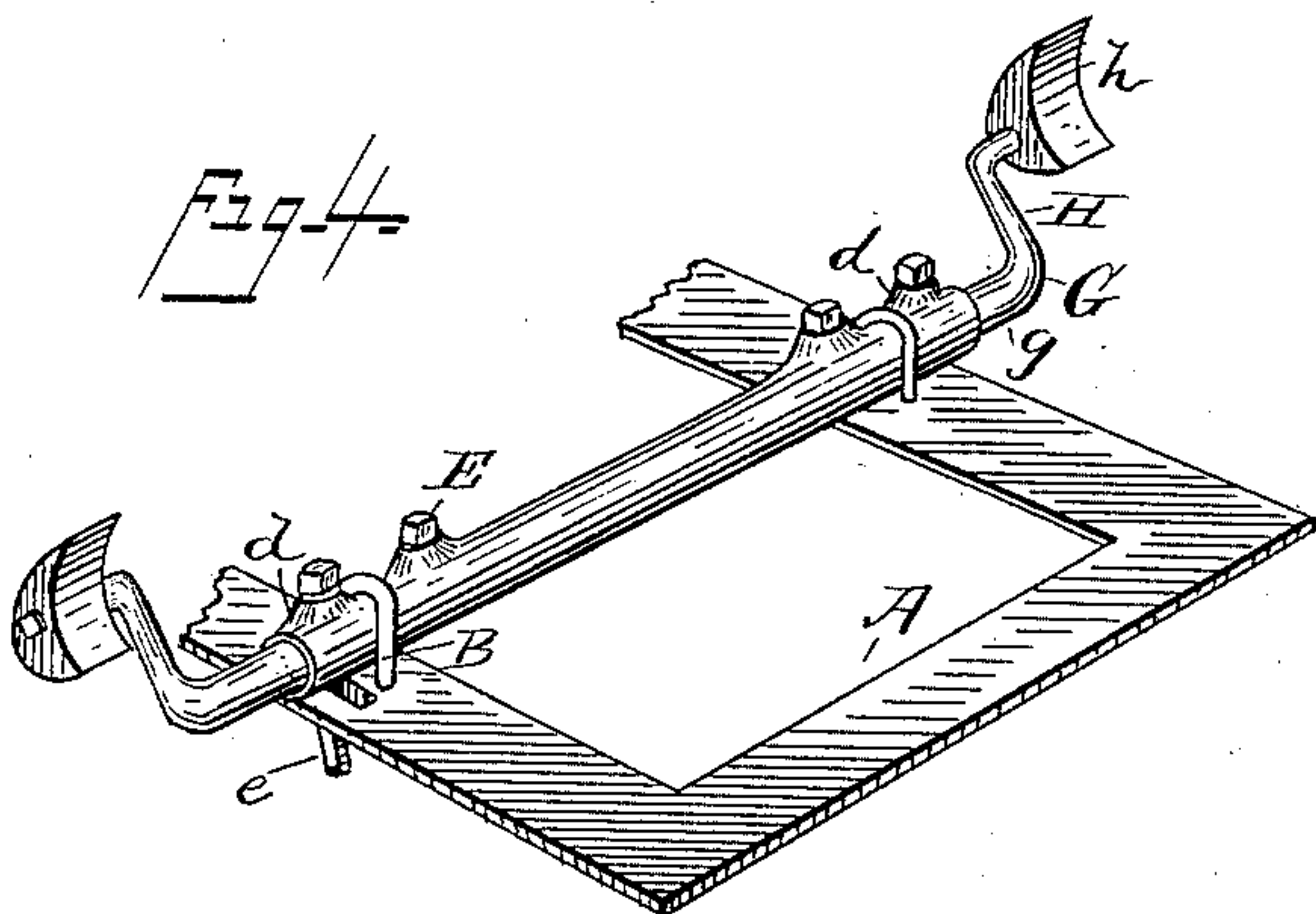
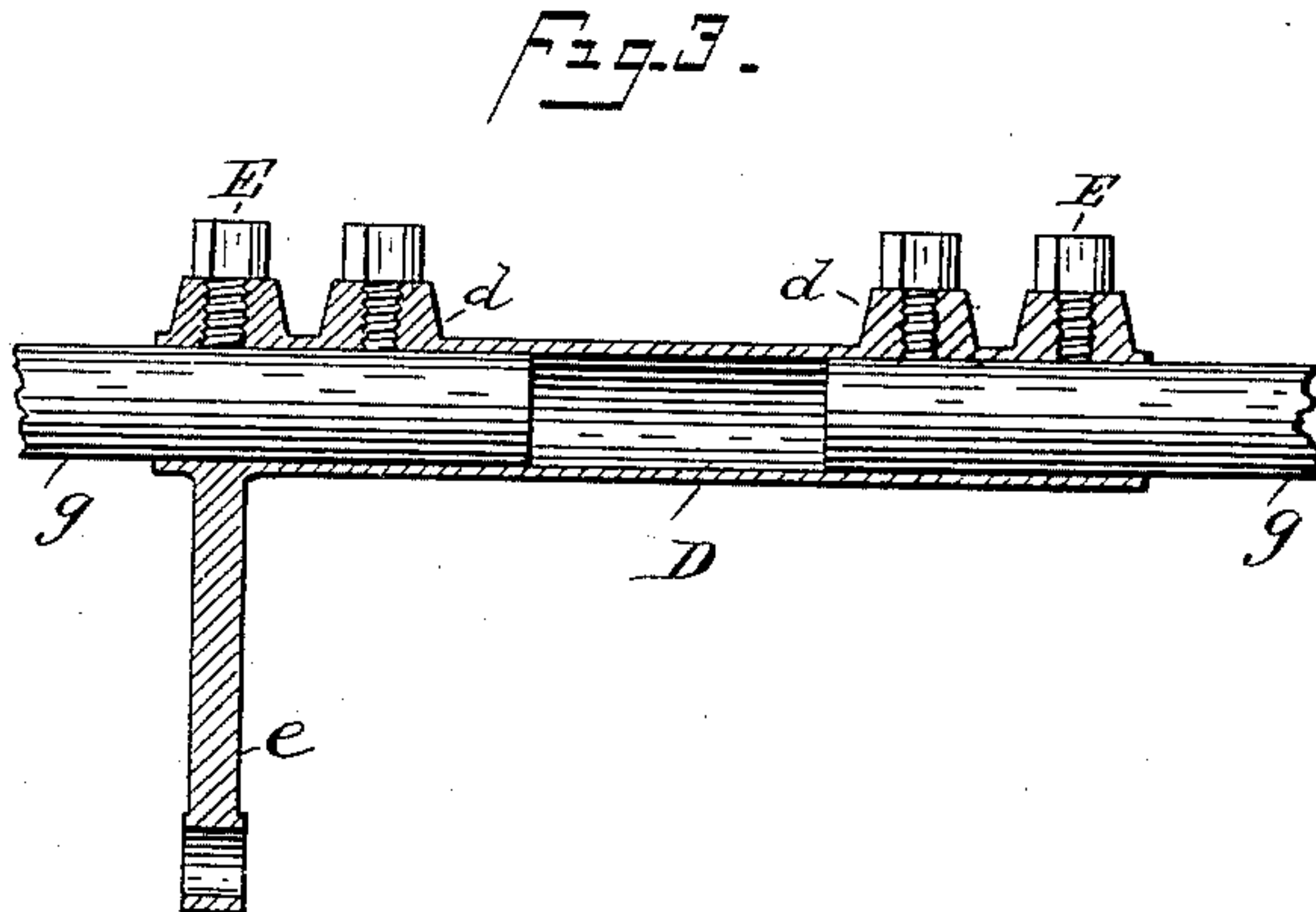
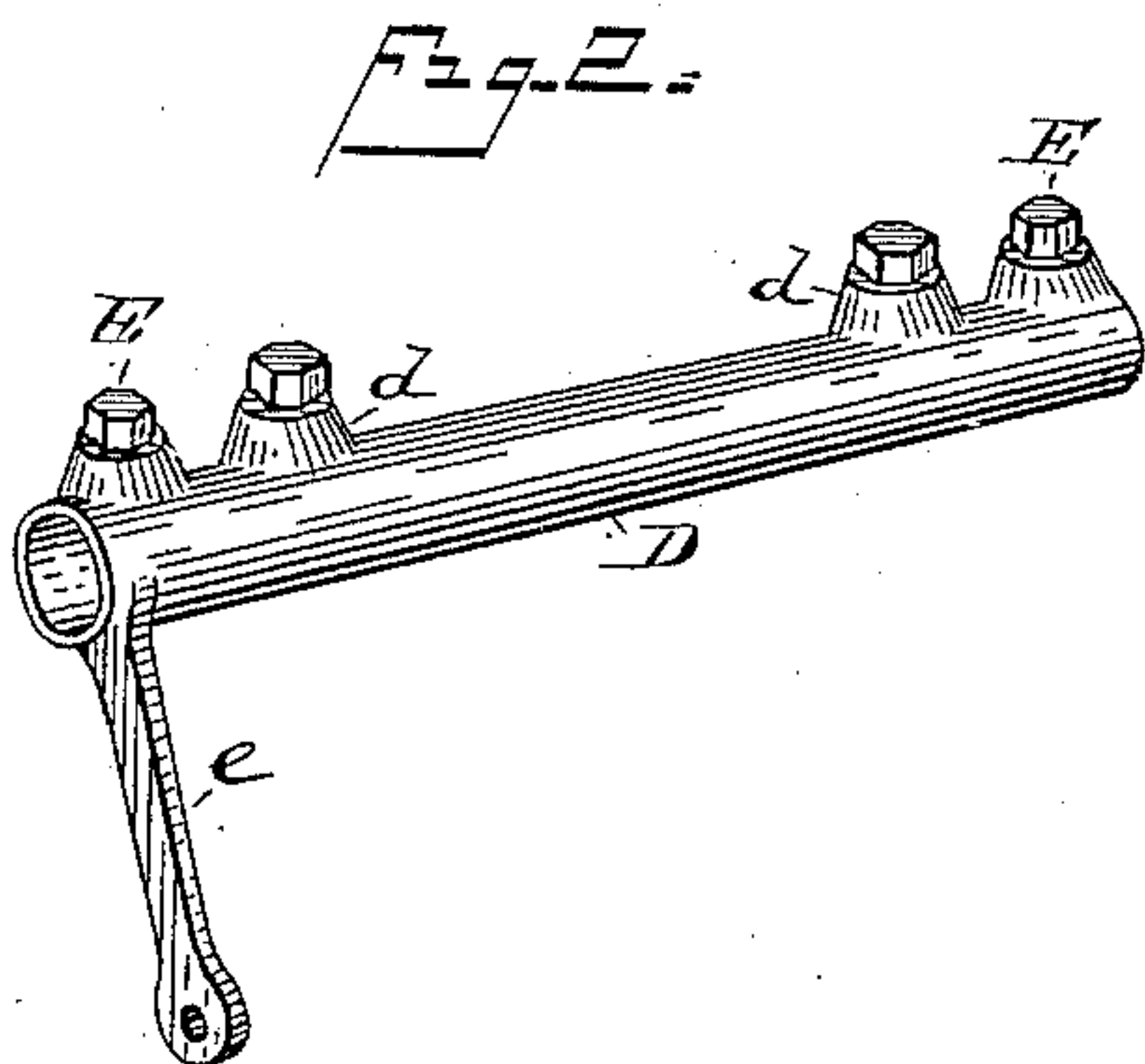
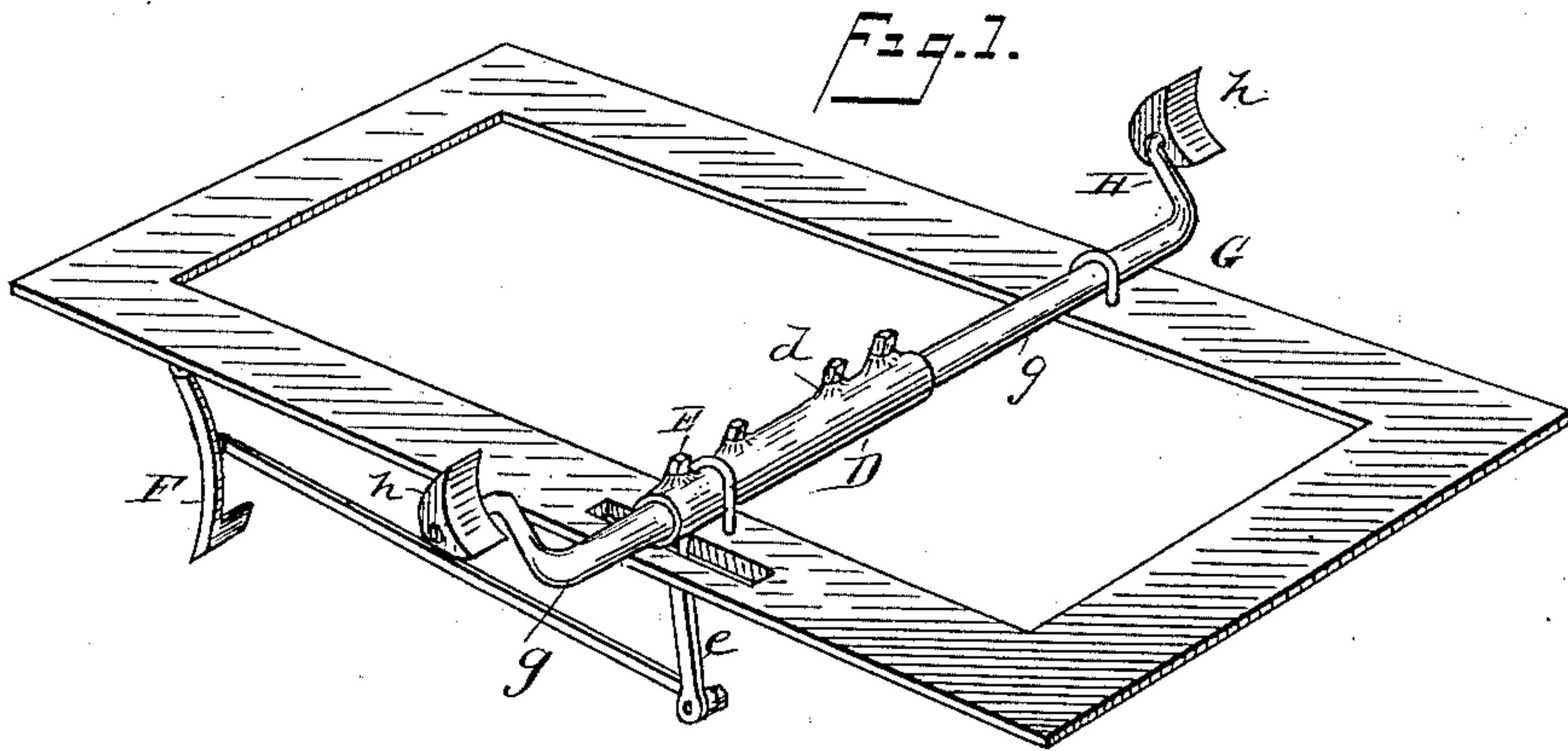
(No Model.)

C. A. LOWELL.

WAGON BRAKE.

No. 375,884.

Patented Jan. 3, 1888.



WITNESSES.

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UNITED STATES PATENT OFFICE.

CHARLES A. LOWELL, OF CORTLAND, NEW YORK, ASSIGNOR TO W. H. NEWTON, OF SAME PLACE.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 375,884, dated January 3, 1888.

Application filed October 4, 1887. Serial No. 251,453. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. LOWELL, a citizen of the United States, residing at Cortland, in the county of Cortland and State of New York, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to a wagon-brake having an adjustable rod secured in a sleeve which is attached to the frame or side of the box, having a crank-lever arm cast integral therewith and extending into the box to be operated by a foot-lever.

The principal object of my invention is to provide a combined sleeve and lever which is securely held in a convenient position for the adjustment of the rods to and from each other within the sleeve, to make the shoes fit the wheels of a wide or narrow gage wagon, and to place the leverage upon the sleeve in order to produce an equal amount of strain upon each end of the adjusting-rod received within the sleeve; and it consists in the construction hereinafter described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of the frame of a wagon-body, bottom side up, showing my improved device applied thereto. Fig. 2 is a perspective view of the sleeve detached. Fig. 3 is a vertical sectional view through the sleeve, showing the ends of the adjusting-rods therein. Fig. 4 is a perspective view of a slightly-modified form of my device. Fig. 5 is a view of the sleeve-bearing secured to the frame of the body.

Like letters of reference refer to corresponding parts in each figure of the drawings.

A represents the frame of a wagon-body placed bottom side up. On the under side of the body there are secured bearings consisting of V-shaped screw-bolts B, that pass up through holes in the wings of a saddle, C, and thence through the body, where the two ends are rigidly secured by nuts b, or by other suitable means, as by rivets over washers. Within the bearings is held an adjusting-sleeve, D, con-

sisting of a strong tube of malleable or other suitable metal, provided on its under side with integral re-enforced lugs d, arranged in pairs near the ends of the sleeve, for holding it in place on the body, and which are also for the reception of screws E, which extend through into the tube for holding the brake-rods. On one or both ends of the adjusting-sleeve D there is a strong crank-lever arm, e, cast integral with the sleeve and of sufficient length to extend up through the body of the box, where it is provided with suitable means for attachment to the ordinary foot-lever, F, on the inside of the box.

The brake rods G consist of two rods having a long arm, g, adapted to enter the ends of the adjusting-sleeve D, and to be securely fastened therein by means of the two set-screws E in the lugs near its ends, without the necessity of having countersinks in the rod for the screws to enter. The outer end portions, H, of the rods are bent at right angles to the long arms g, and are provided on their outwardly-extending portions with the ordinary brake-shoes, h, which come in contact with the wheels of the vehicle.

In attaching the brake to the body of the wagon the bearings B are made to hold around one or both ends of the adjusting-sleeve D between the re-enforced lugs d and set-screws, to hold the sleeve and rod from sliding through the bearings too far to one or the other side of the body, so that the brake-shoes h will be out of line, or so nearly so as to cause it to slip off the side of the wheel when applied thereto, as heretofore experienced with the simple rod brakes. Ordinarily one end of a sleeve of less length than the width of the body A so attached by the bearings is found sufficient to hold the rods in place, while the brake-rod rests in the opposite bearing; but a long sleeve extending the width of the body, with both ends secured in the bearings, gives additional strength to the brake by bringing the point of union of the brake-rod and sleeve nearer to the shoe h upon which the strain is made.

The brake-rods G are adjusted into and out of the sleeve D to conform to the width of a narrow or wide gage wagon, and are held by two or more set-screws in the sleeve, which

prevent their turning or working loose, as has been the case heretofore in this class of brakes. The rods G, being adjusted independently of each other, may be set at a different
5 angle or out of the same line, to compensate for any irregularity in the wheels, one of which frequently becomes dished or sprung and out of true with the others.

Heretofore the lever-arm *e* has been attached
10 directly to one of the brake-rods, bringing the entire strain of the lever in applying the brakes upon one set-screw near the end of the sleeve, causing the rod to which the lever is attached to wear at the point of contact with the set-
15 screw and work loose, or to be twisted by the strain upon it, so as to bring the brake-shoes out of line with each other, thereby causing one of them to come in contact with one wheel before the other one reaches the opposite wheel.
20 To obviate this difficulty my lever-arm *e* is made integral with and on one side of the adjusting-sleeve D, so that in applying the brakes the strain exerted by the lever is brought to bear alike on both ends of the sleeve and upon
25 each of the inner or received ends, *g*, of the brake-rods, thereby producing an equal and like pressure upon each of the brake-shoes.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination, with a wagon-brake rod made in two parts, of an adjusting-sleeve connecting the rods and having means for holding them therein, and a lever-arm integral with the sleeve, as set forth.

2. The combination, with a brake-rod made in two parts, of an adjusting-sleeve connecting the rods, having lugs in pairs near its ends, and a lever arm integral therewith, as set forth.

3. The combination, with a brake-rod in two parts, united by a sleeve having lugs in pairs near each end and a lever-arm integral therewith, of set-screws passing through said lugs, holding the separate parts of the brake-rod within the sleeve, and bearings around the sleeve between the lugs, securing the brake to the body, as set forth.

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

CHARLES A. LOWELL.

Witnesses:

J. R. INGALLS,
A. W. CURTIS.