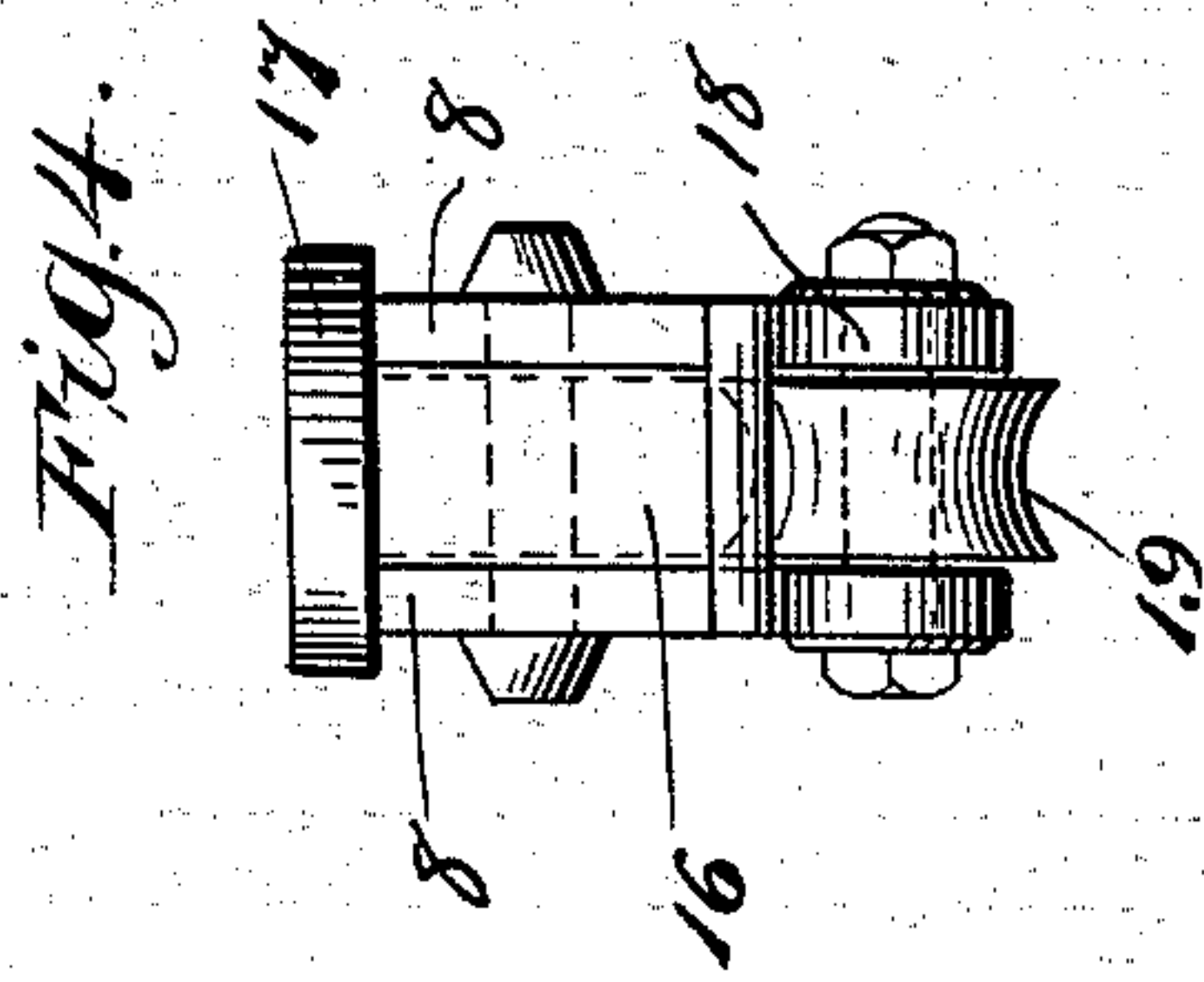
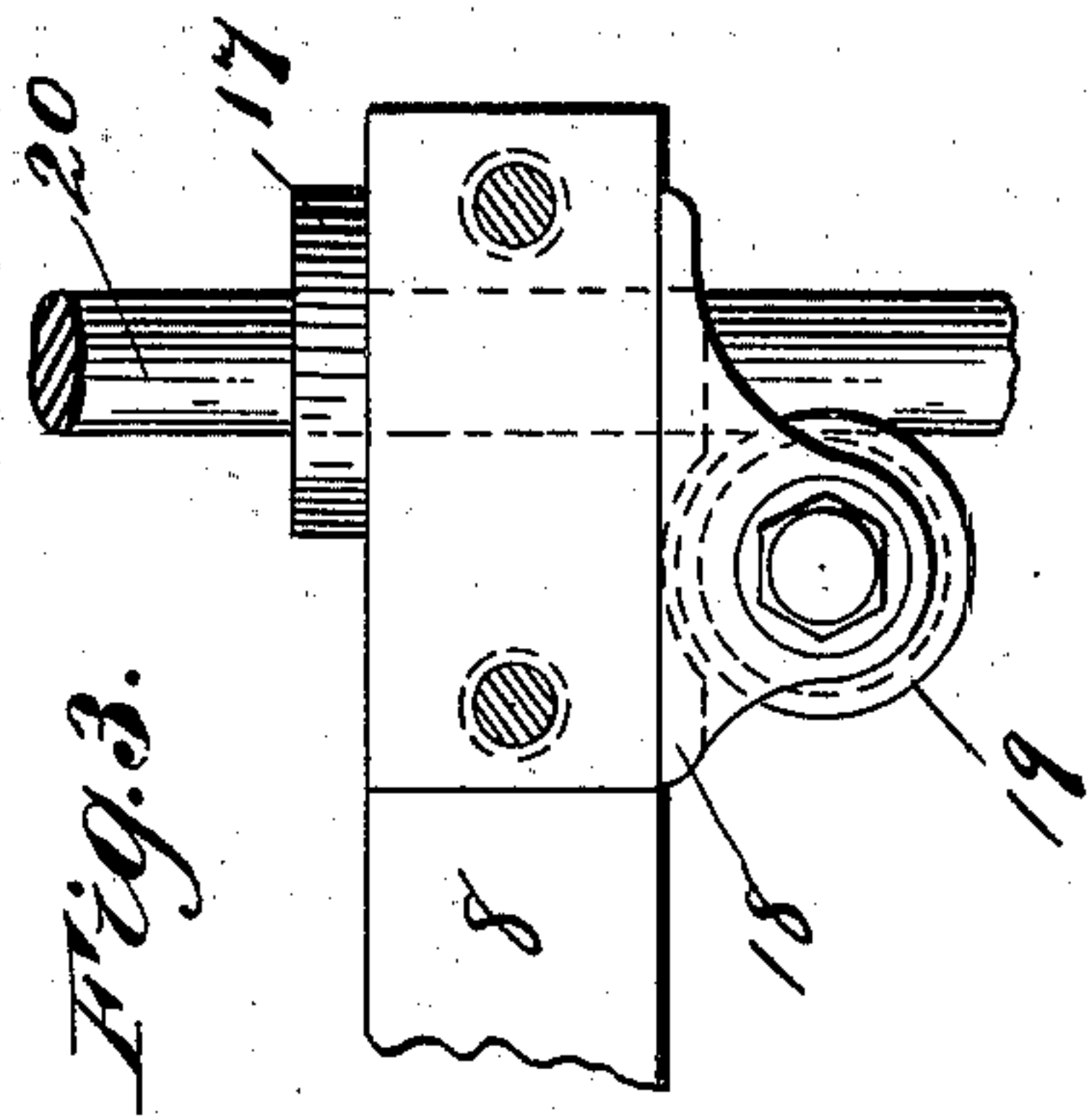
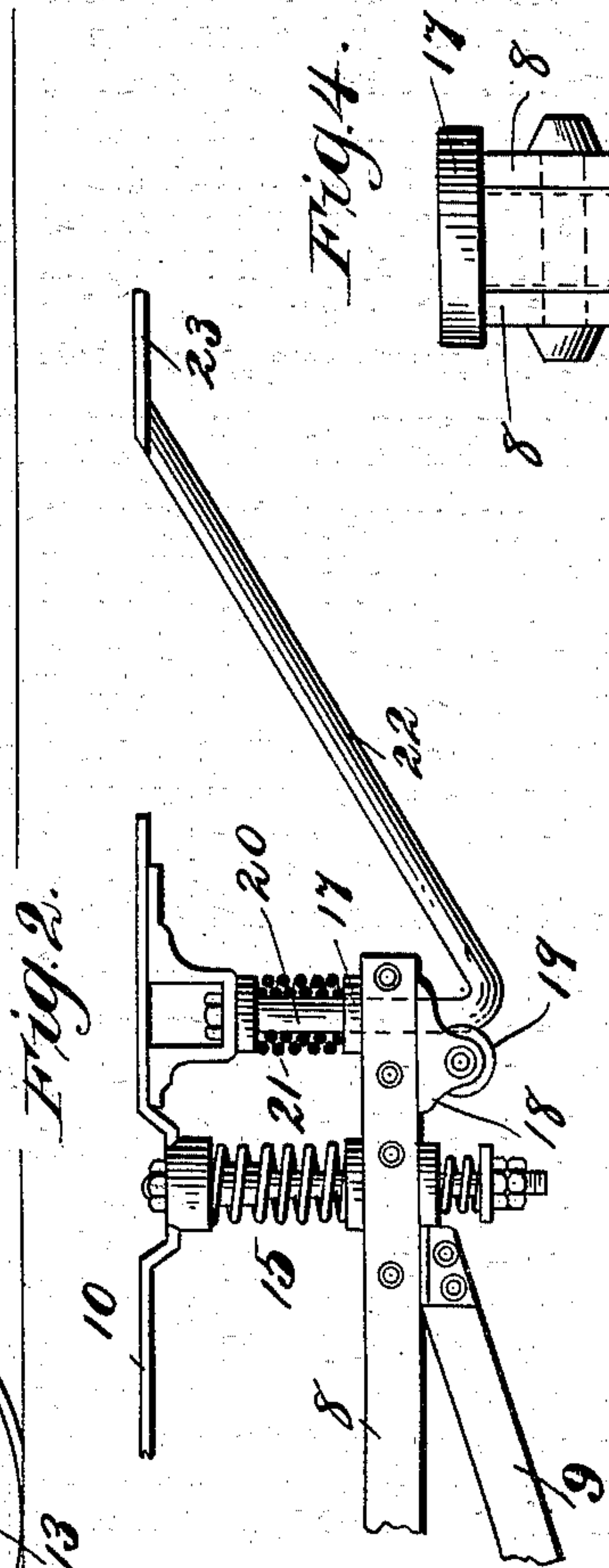
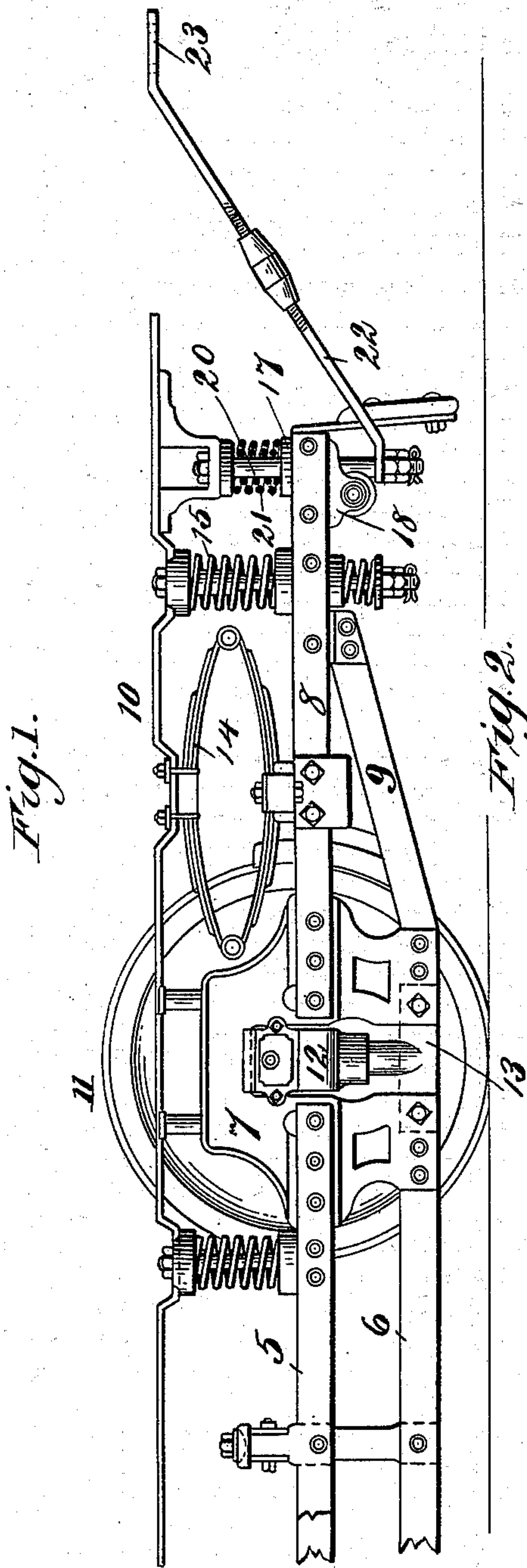


(No Model.)

E. PECKHAM.  
TRUSS BRACE FOR RAILWAY CARS.

No. 560,816.

Patented May 26, 1896.



Witnesses:-  
*J. E. W. Brown*  
*W. C. Pinckney*

Inventor:  
*Edgar Peckham*



# UNITED STATES PATENT OFFICE.

EDGAR PECKHAM, OF NEW YORK, N. Y.

## TRUSS-BRACE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 560,816, dated May 26, 1896.

Application filed February 29, 1896. Serial No. 581,391. (No model.)

*To all whom it may concern:*

Be it known that I, EDGAR PECKHAM, a citizen of the United States, and a resident of New York, in the county and State of New York, have invented certain new and useful Improvements in Truss-Braces for Railway-Cars, of which the following is a specification.

This invention relates to car-trucks, and particularly to such as are designed for street-railway service.

The object of the invention is to afford an extended support for the ends of the car-body. This I accomplish by the employment of truss-bracings supported by the truck-frame, as hereinafter explained.

My invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of one end of a car-truck, showing my invention applied thereto. Fig. 2 is a detail elevation showing a somewhat different embodiment of the invention. Fig. 3 is a detail view of the extreme end of the truck-frame, showing the vertically-movable bolt and the roller with which it coöperates; and Fig. 4 is an end view of Fig. 3, the vertically-movable bolt being omitted.

In the drawings like parts are indicated by like numerals in the several views.

It is to be understood that each corner of the car-body is to be provided with the diagonal truss-bracing shown, the latter being supported by the truck-frame.

Referring to the drawings, 5 indicates the upper longitudinal beam of the truck, which is preferably duplex, and 6 the bracing-beam between the yokes. These beams are riveted to the yokes, as indicated. To the outer sides of the yoke, which is indicated by 7, there is riveted longitudinal beam 8, which affords support for springs, as shown, beam 8 being of greater or less length, according to the proportions desired of the spring-base extension. The end extension-beam 8 is supported from below by truss-beam 9, riveted to the lower part of the yoke and inclined upward to beam 8, to which it is suitably riveted.

Suitably supported on standards rising from the longitudinal beams 5 and 8 is a sill or top chord 10, which coacts with the springs on said beams and upon which the car-body is adapted to be mounted.

In the drawings, 11 indicates the car-wheels, 12 the axle-boxes, and 13 removable repairing-piece between the lower legs of the yoke. Adjacent to the yoke there is mounted on extended end beam 8 an elliptic spring 14, which is connected to the sill 10, as shown, and in advance of the elliptic spring there is arranged a spiral spring 15, supported on said beam 8, with its rod or spindle connected to the sill and extending below the beam and provided with a tension-spring and nut, as shown. The features thus described are shown in Letters Patent heretofore granted to me or in applications pending, and are not claimed in the present application, being described herein merely for the sake of the completeness of this specification.

At or near the end of longitudinal beam 8, which is duplex by preference, there is riveted the casting 16, with a collar 17, which rests upon the upper edge of the said beam, and with the depending bracket, as 18, below the under edge of said beam. In this bracket there is journaled a roller 19, this being one convenient mode of supporting the roller. Bolt or support 20 is secured at its upper end to the car-sill 10, and moves with the car-body and is independent of the truck-frame. Surrounding bolt 20 is a spiral spring 21, which is preferably made duplex, as shown in Fig. 2, and which is seated in a socket on beam 8 and has a bearing at its upper end on a collar beneath a bracket on the sill 10. Bolt 20 extends beneath beam 8 in operative contact with roller 19.

To the lower end of support or bolt 20 there is suitably connected the brace 22, which, from its point of connection to the rod or support 20, extends outwardly and upwardly and is adapted to be connected at its outer end to the car-body. As shown, the diagonal brace 22 is provided at its outer end with a horizontal portion 23 to facilitate its attachment to the car-body, and, as also shown, it is provided with a turnbuckle device 24, whereby its tension may be adjusted. The diagonal brace 22 may be formed integral with the supporting-bolt 20, as shown in Fig. 2, (and I prefer to so make it,) and it need not in every case be provided with a tension-adjusting device. The object of this diagonal-bracing means at the ends of the car is to prevent the



teetering, oscillation, or sagging of the ends of the car-body, and is particularly intended for car-bodies of unusual lengths. The roller 19, interposed between the upright bolt 20 and the truck-frame, serves to relieve said bolt of friction and also affords a bearing for the same at its lower end, the rotation of the roller in the up-and-down movement of the car-body also insuring an easy play of said support in its bracket.

By the described construction the requisite flexible support is afforded at the extreme ends of the car-body, an important consideration when car-bodies of unusual length are made use of.

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

1. In a car-truck, the combination with a horizontally-extended end beam and an upper longitudinal chord or sill, of a supporting-truss connected to said upper chord or sill and passing below said extended end beam at its outer end and rigidly connected to a diagonal member which extends outwardly and upwardly and beyond the truck-frame, substantially as set forth.

2. A car-truck frame having horizontally-extended end beams and spring-supported sills or upper longitudinal chords on which to mount a car-body, and provided at its ends with supporting-trusses connected to said sill or upper longitudinal chord of the truck-frame near its outer ends and extending beneath said end beams and having bearings thereon and rigidly connected to diagonal members which extend upwardly and outwardly beyond the truck-frame, substantially as set forth.

3. In a car-truck, the combination with the sill or upper longitudinal member of the truck-frame provided with a bracket, and a horizontally-extended end beam, as 8, of spiral spring 21 between said sill and beam 8, and its spindle connected to said bracket and extending beneath beam 8, said bracket, spring and spindle being at the outer end of the extended end beam, and a supporting-truss rigidly connected to the lower end of said spindle, inclined upwardly beneath the car-body and provided with turnbuckle, as 24, substantially as set forth.

4. In a truss or bracing for cars, the combination with the truck-frame, of vertical and diagonal bracing members rigidly joined together at their lower ends, the former secured to the car-sill or the top frame of the truck and the outer end of the latter adapted to be connected to the outer end of the car-body, and a roller interposed between the truck-frame and said vertical member to relieve the latter of friction and arranged to afford a bearing for the truss-bracing at the juncture of said vertical and diagonal members, substantially as set forth.

5. The combination with a car-truck having a beam or extension at the front of the

yoke, of a diagonal truss-bracing with its outer end extending beyond the truck-frame and adapted to be connected to the outer end of a car-body, and an upright bolt or support connected to the top frame of the truck or the car-sill with its lower end rigidly secured to the inner end of said diagonal truss-bracing below said beam or extension at the front of the yoke, and a roller located beneath said beam or extension between the truck-frame and said upright bolt to afford a bearing for said truss-brace at its juncture with the upright bolt, substantially as set forth.

6. In a car-truck, the combination with the extended end beam 8 and a casting as 18, provided with a roller, as 19, of a supporting-truss connected to the sill or upper longitudinal member of the truck-frame and operating through said casting in contact with said roller and extending outward and upward beneath the car-body, substantially as set forth.

7. In a car-truck, the combination with an extended end beam provided at its outer end with a casting carrying a roller, of a supporting-truss connected to the sill or upper longitudinal member of the truck-frame, extending through said casting in contact with said roller and outward and upward beneath the car-body and provided with means for adjusting its length, substantially as set forth.

8. In a car-truck, the combination with an extended end beam 8 provided at its end with a casting carrying a roller, bolt or supporting-spindle connected to the upper longitudinal member of the truck-frame and passing through said casting in contact with said roller, and a spiral spring surrounding said bolt above the casting, of a supporting-truss extending from the lower end of said bolt upward and outward beyond the truck-frame, substantially as set forth.

9. The combination with the duplex extended end beam 8, of casting 16 bolted between the members of said beam and provided with a collar at its top which rests on the upper edges of said beam 8 and also provided with a depending bracket projecting below the lower edges of said beam and having a roller as 19, and a supporting-truss operating through said casting and projecting upward beneath the car-body, substantially as set forth.

10. The casting 16 herein described provided with a collar 17 at its top and with a depending bracket 18 at its bottom carrying a roller, as 19, substantially as set forth.

11. In a car-truck, the combination with the yoke, the horizontally-extended end beam 8 and the under truss-beam 9, of a roller secured to the outer end of said end beam and a truss comprising a vertical member attached at one end to the upper chord of the truck-frame and coacting with said roller and a diagonal member secured to the lower end of the vertical member and extending upwardly and outwardly beyond the truck-frame, substantially as set forth.



12. In a truss or bracing for cars, the combination with the truck-frame, of vertical and diagonal bracing members joined together at their lower ends, the former connected to the car-sill or upper longitudinal chord of the truck-frame and the latter adapted to be connected to the outer end of the car-body, a bracket secured to the truck-frame and a roller supported by said bracket and bearing against the lower portion of said vertical

member near its juncture with the diagonal member of said brace, substantially as set forth.

Signed at New York, in the county and State of New York, this 27th day of February, 1896.

EDGAR PECKHAM.

Witnesses:

J. E. M. BOWEN,  
M. C. PINCKNEY.