No. 811,641. PATENTED FEB. 6, 1906.

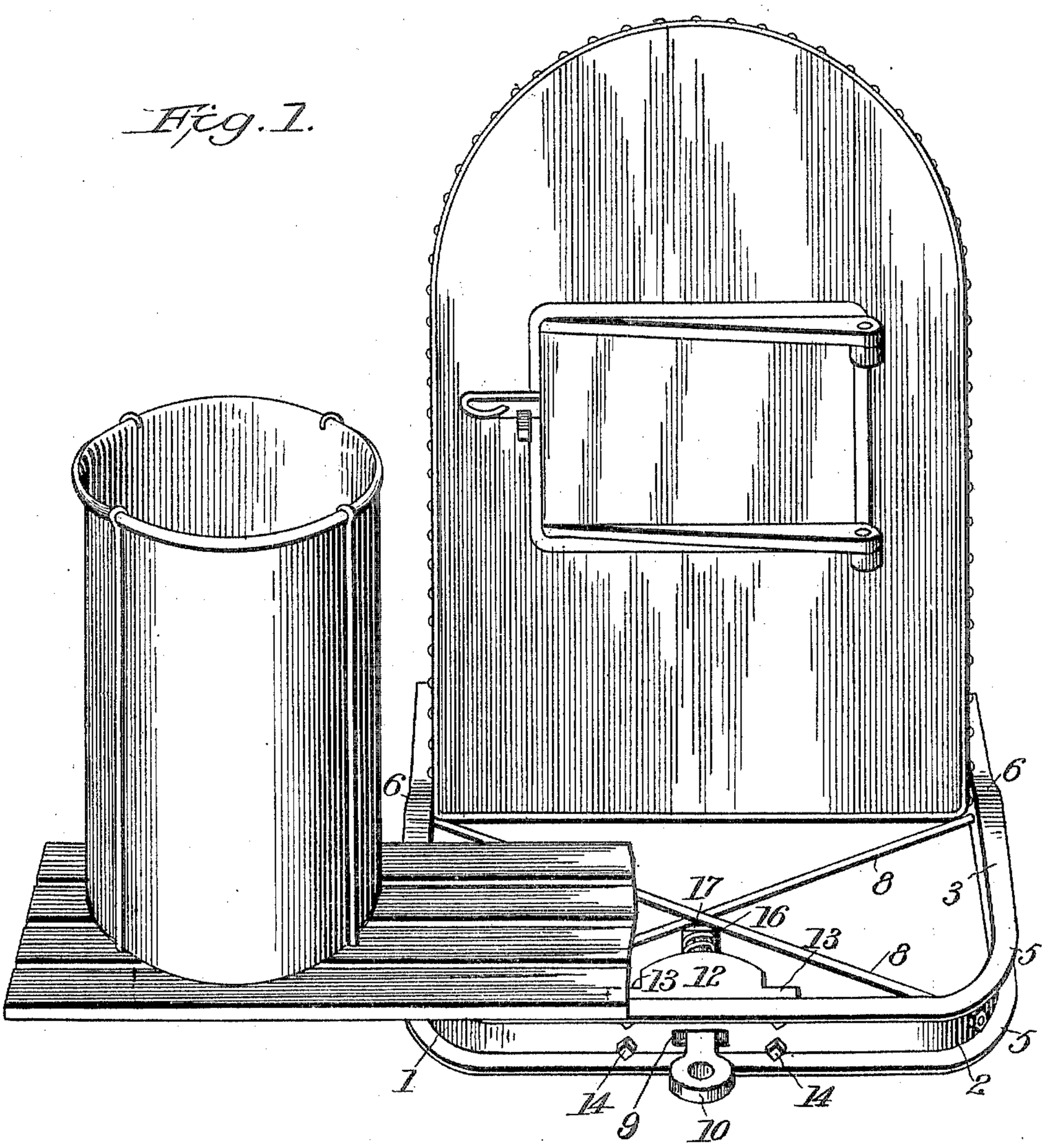
A. G. KERN.

TRACTION ENGINE.

APPLICATION FILED JULY 27, 1905.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 2.

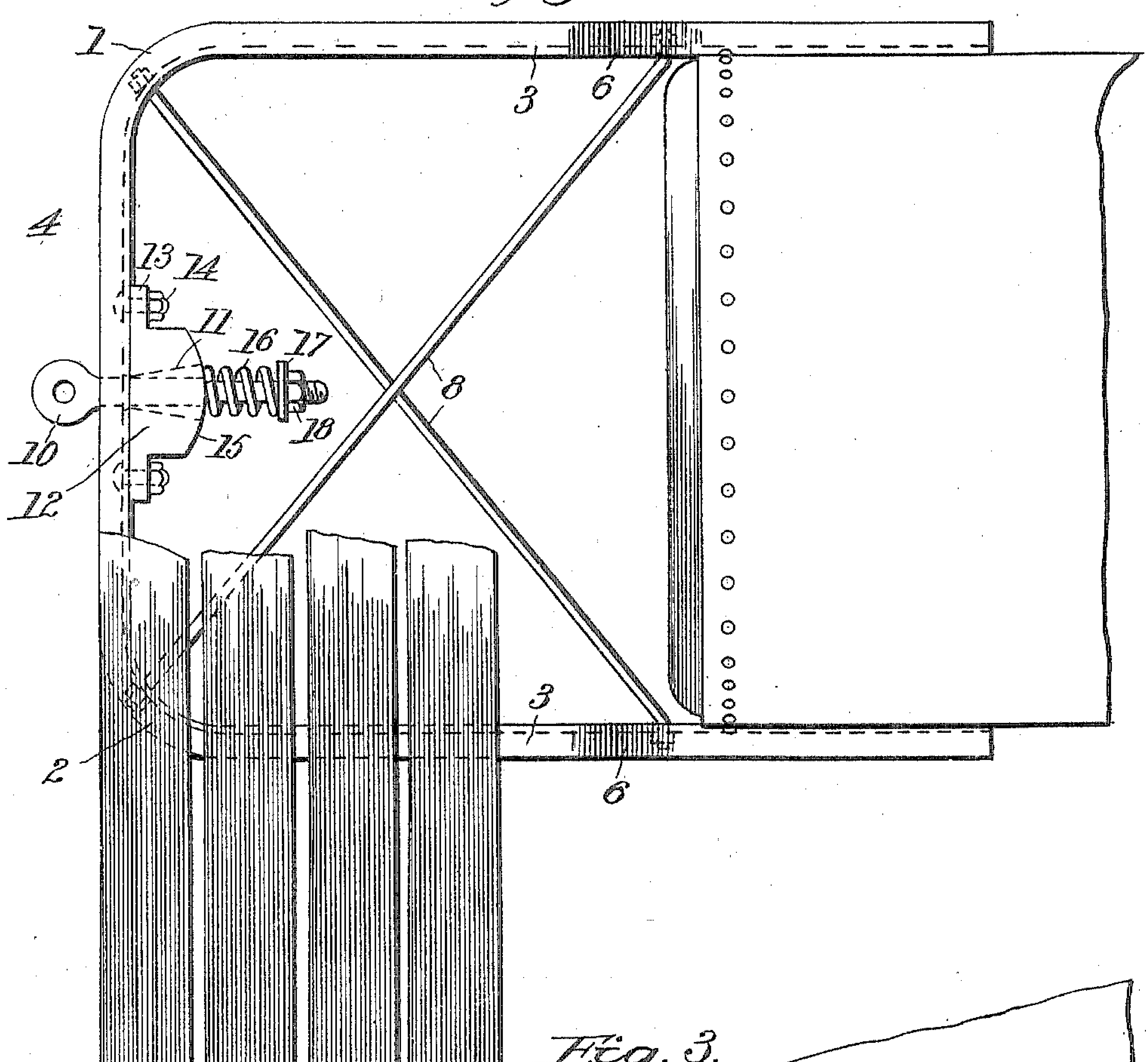
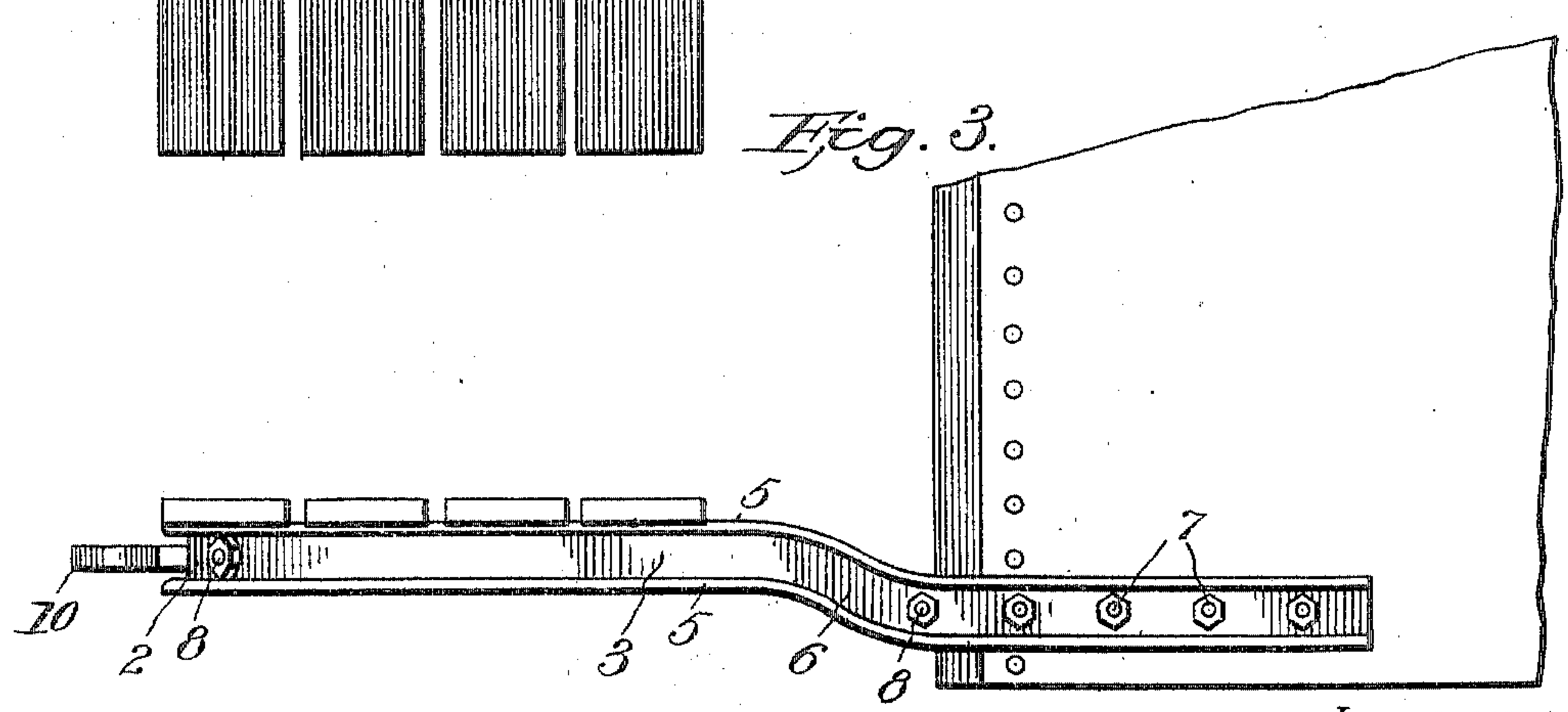


Fig. 3.



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TRACTION-ENGINE.

No. 811,641. Specification of Letters Patent. Patented Feb. 6, 1906.

Application filed July 27, 1905. Serial No. 271,446.

To all whom it may concern:

Be it known that I, ALBERT G. KERN, a citizen of the United States, residing at Battlecreek, in the county of Calhoun and State of Michigan, have invented a certain new and useful Combined Platform-Frame and Draw-Bar Support for Traction-Engines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to traction-engines; and the object of the invention is to provide a combined platform-frame and draw-bar support designed for use upon traction-engines and so constructed, arranged, and combined with the traction-engine as to do away entirely with the liability of straining the usual connecting or retaining bolts or rivets and the leakage to the boiler steam-space incident to such straining.

In many traction-engines the draw-bar is bolted directly to the front sheet of the fire-box by suitable castings. In this invention a special form of frame is provided for the combined support of the engineer's platform and the draw-bar, and this frame is connected to the side sheets of the boiler below the steam-line where expedient, thus doing away with all chance of leakage due to strain thrown upon the connecting bolts or rivets.

With the above and other objects in view the nature of which will more fully appear as the description proceeds the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a rear perspective view of a sufficient portion of a traction-engine to illustrate the construction and arrangement of the combined platform-frame and draw-bar support, which is shown applied thereto. Fig. 2 is a plan view of the same. Fig. 3 is a side elevation thereof, showing the platform-frame in edge view.

Like reference-numerals designate corresponding parts in all the figures.

The combined platform-frame and draw-bar support contemplated in this invention is composed of a suitable length of channel-iron which is bent at two points 1 and 2 to form the side bars 3 and the connecting portion or front cross-bar 4, the sides and connecting portion being thus in one piece, while the top and bottom flanges 5 extend outward, as shown.

In order to give the proper elevation and clearance to the platform, the end portions of the side bars are offset or deflected downward, as shown at 6, and such offset portions are extended a suitable distance along the side sheets of the boiler or fire-box and firmly connected thereto upon the outside by bolts or rivets, as shown at 7, the points at which the connections 7 occur being below the line of steam in the boiler where expedient, and consequently avoiding any possibility of leakage of steam, an objection found in many traction-engines now on the market where the platform is supported by bolts or rivets which pass into the steam-space of the boiler and when strained by weight on the platform causing leakage around such bolts or rivets.

8 designates diagonal braces which serve to strengthen the platform-frame support.

Centrally of the connecting-bar 4 the latter is provided with an opening 9 for the passage of the draw-bar 10. The draw-bar also passes through a flared opening 11 in a draw head or block 12, provided with lugs 13 to receive bolts or other fasteners 14, by means of which the head or block 12 is secured firmly to the inner face of the channel-iron, as shown. The inner face of the head or block 12 is rounded, as shown at 15, to form an arcuate spring-seat against which bears the inner end of a draw-bar cushioning-spring 16, the latter encircling the draw-bar and being confined between the seat 15 and a shoulder on the draw-bar, said shoulder being shown for convenience as consisting of a washer 17, backed up by a nut 18 on the inner end of the draw-bar. The opening 9 in the frame and the flared opening 11 in the draw head or block are of sufficient size to permit the draw-bar to swing from side to side in turning.

The platform proper shown at 19 may be of any desired construction and size, and the end portions thereof are usually extended far enough to form supports for the customary water-tank and coal-box, a portion of said platform and the water-tank being illustrated in Fig. 1.

Having described the invention, I claim as new—

1. A combined platform-frame and draw-bar for traction-engines consisting of an open center frame of channel-iron having the side

bars thereof connected to the side sheets of the fire-box and bent to form an integral end cross-bar connecting the side bars, and a spring-cushioned draw-bar connected solely to and carried wholly by said end cross-bar.

2. A combined platform-frame and draw-bar support for traction-engines consisting of an open center frame having side bars the end portions of which are deflected downward and connected to the side sheets of the fire-box, and a connecting-bar, and a draw-bar carried by the connecting-bar of the frame.

3. A combined platform-frame and draw-bar support for traction-engines consisting of an open center frame having side bars connected to the side sheets of the fire-box, and a connecting-bar, a draw head or block carried by the connecting-bar and provided with an arcuate spring-seat, a draw-bar passing through the connecting-bar and said head, and a spring interposed between a shoulder on the draw-bar and said seat.

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

ALBERT G. KERN.

Witnesses:
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