No. 664,599. Patented Dec. 25, 1900.

F. J. WEIR.

TENDER FOR TRACTION ENGINES.

(Application filed Sept. 11, 1900.)

(No Model.)

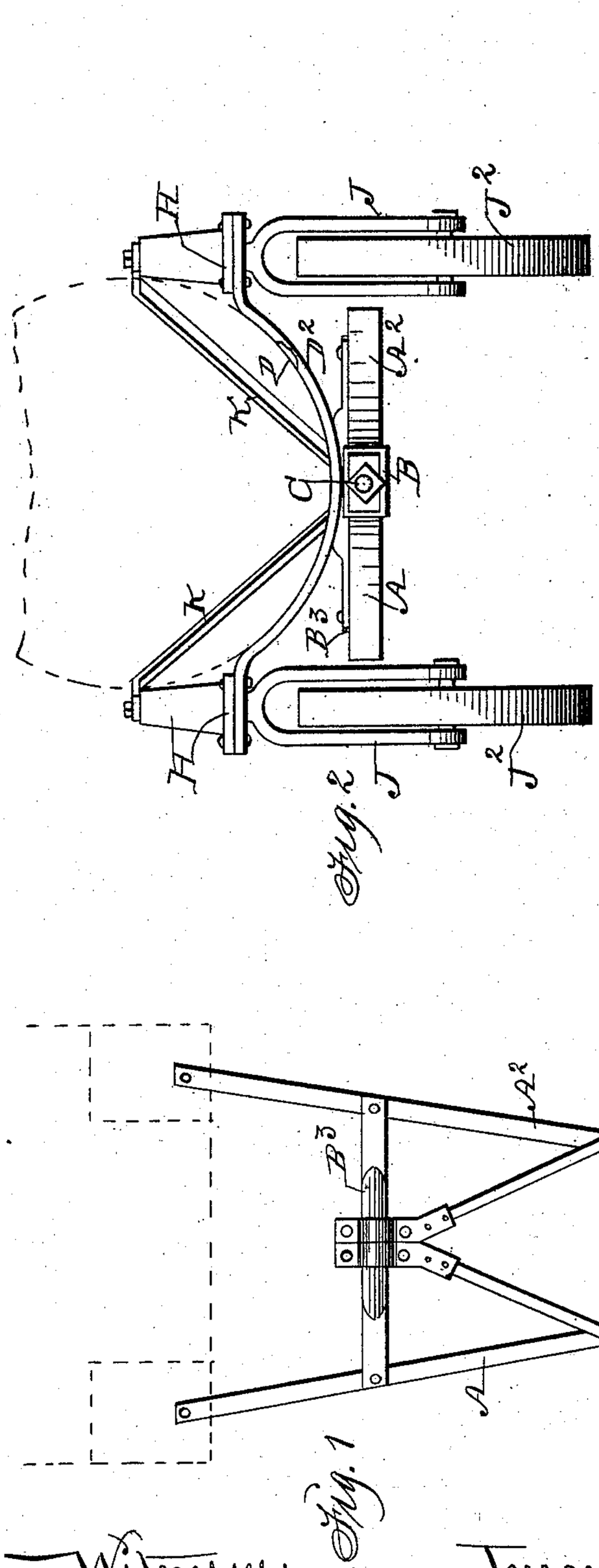

Fig. 2.

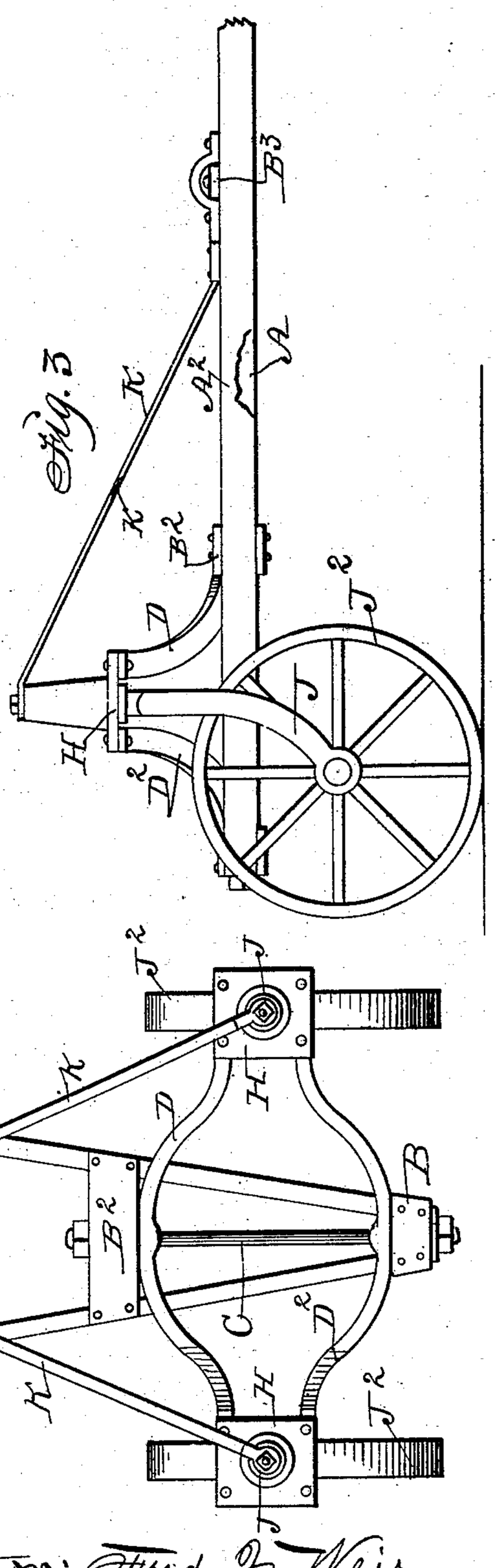

Fig. 3.

Fig. 1.

Witnesses:
Undine Wilson,
R. H. Orwig.

Inventor: Fred J. Weir,
by Thomas G. Orwig, Atty.

UNITED STATES PATENT OFFICE.

FRED J. WEIR, OF GILMORE CITY, IOWA, ASSIGNOR OF ONE-HALF TO W. B. WEIR, OF SAME PLACE.

TENDER FOR TRACTION-ENGINES.

SPECIFICATION forming part of Letters Patent No. 664,599, dated December 25, 1900.

Application filed September 11, 1900. Serial No. 29,663. (No model.)

To all whom it may concern:

Be it known that I, FRED J. WEIR, a citizen of the United States, residing at Gilmore City, in the county of Pocahontas and State of Iowa, have invented a new and useful Tender for Traction-Engines, of which the following is a specification.

My object is to provide a simple, strong, and durable carriage for the tender of a traction-engine and adapted to be rigidly fixed to the engine to remain in alinement therewith as the engine is advanced and also adapted to allow the wheels of the carriage lateral motion relative to the line of advance and up-and-down motion relative to the unevenness of ground as required to prevent the center of gravity of the weight on the carriage from being disturbed and to prevent the accidents and damages incident to the side pressure and upsetting of engines and tenders on uneven roads.

My invention consists in the construction, arrangement, and combination of parts, as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a top view of the carriage, and dotted lines indicate the rear end portion of an engine, to which the carriage is to be rigidly fixed. Fig. 2 is a rear end elevation, and dotted lines indicate the position of a water-tank to be carried on the tender-carriage. Fig. 3 is a side elevation of the carriage.

The letters A and A^2 designate mating straight bars (hard wood or iron) fixed together rigidly at their rear ends by means of a coupling-iron B, that is adapted to admit the ends of the bars to be bolted fast therein and in inclined positions relative to each other as required to produce a V-shaped frame. The coupling also has a central longitudinal bore to admit the end of a round bar.

B^3 is a cross-bar fixed to the bars A and A^2 at their widely-separated end portions. A simple strong rigid frame is thus produced, that is adapted to be rigidly fixed to the rear portion of a traction-engine, as indicated by dotted lines.

C is a round bar extended through the bores in the coupling B and cross-bar B^2 and securely and detachably fastened thereto by means of nuts on its ends or in any suitable way for pivotally connecting a curved frame with the V-shaped frame.

D and D^2 are mating parts of a curved frame adapted to serve as a bearer for caster-wheels and a support for a cylindrical water-tank, as shown in Fig. 2. These mating parts are formed of iron bars that have lateral and also vertical bends, and their parallel ends are rigidly connected by means of caster-wheel supports H, bolted thereto in such a manner that caster-wheel bearers J, carrying wheels J^2, can be readily swiveled thereto, as shown and as required to support the rear end portion of the complete tender. The parts D and D^2 have enlarged centers and bores through their centers through which the round bar C is extended in such a manner as to produce a pivotal connection of the curved frame with the V-shaped frame, so as to allow the caster-wheels to pass over uneven surfaces and the curved frame to rock without preventing the weight thereon from being centered upon the bar C and as required to maintain the load on the tender balanced as it is advanced over uneven ground. Braces K are fixed on top of the parts H of the curved frame and pivotally connected with the cross-bar B^3 to strengthen the complete carriage and to aid in retaining a water-tank thereon.

Having described the construction, function, arrangement, and combination of parts, the practical utility of my invention will be understood by persons familiar with the art to which it pertains.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a tender for traction-engines, a V-shaped frame adapted to be rigidly fixed to the rear end of an engine and composed of two mating straight bars rigidly connected at their rear ends, a coupling adapted for fastening the rear ends of said bars together rigidly and provided with a central bore to admit a round bar, a cross-bar having a transverse central bore fixed to said straight bars at some distance from said coupling, a round bar fixed at its rear end in the bore of said coupling and at its front end in the bore of said cross-bar and a second cross-bar fixed to the separated front end portions of the mat-

ing straight bars, as shown and described for the purposes stated.

2. A tender-carriage for traction-engines comprising a V-shaped frame composed of two mating straight bars, a coupling having a central bore fixed to their rear ends, a cross-piece having a central transverse bore fixed to said mating bars at some distance from said coupling, a second cross-piece fixed to the widely-separated portions of said mating bars, a round bar fixed in the bores of the coupling and cross-piece, a curved frame pivotally connected with said round bar and composed of two mating bars curved laterally and vertically and provided with transverse bores at their center and fixed together in parallel position at their ends, supports for caster-wheels fixed to the ends of the curved bars, caster-wheel bearers carrying wheels swiveled to said supports and braces fixed to said supports and pivotally connected with the cross-piece at the front portion of the V-shaped frame, all arranged and combined to operate in the manner set forth for the purposes stated.

FRED J. WEIR.

Witnesses:
N. A. LEEPER,
FRANK CASE.