

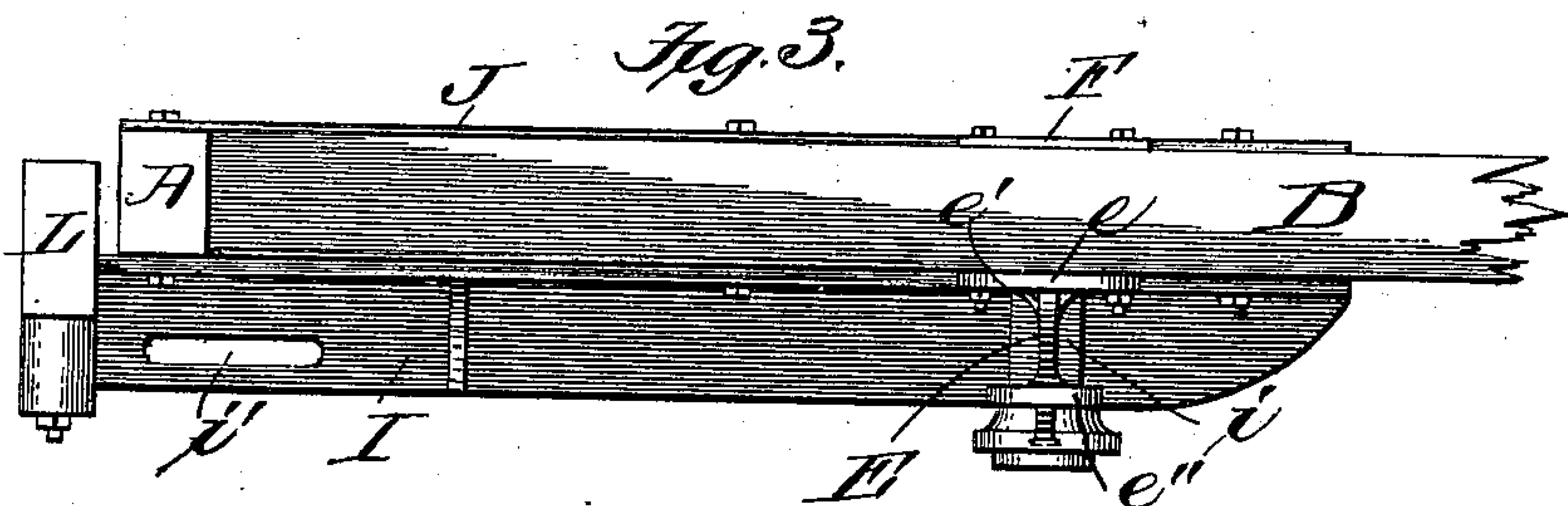
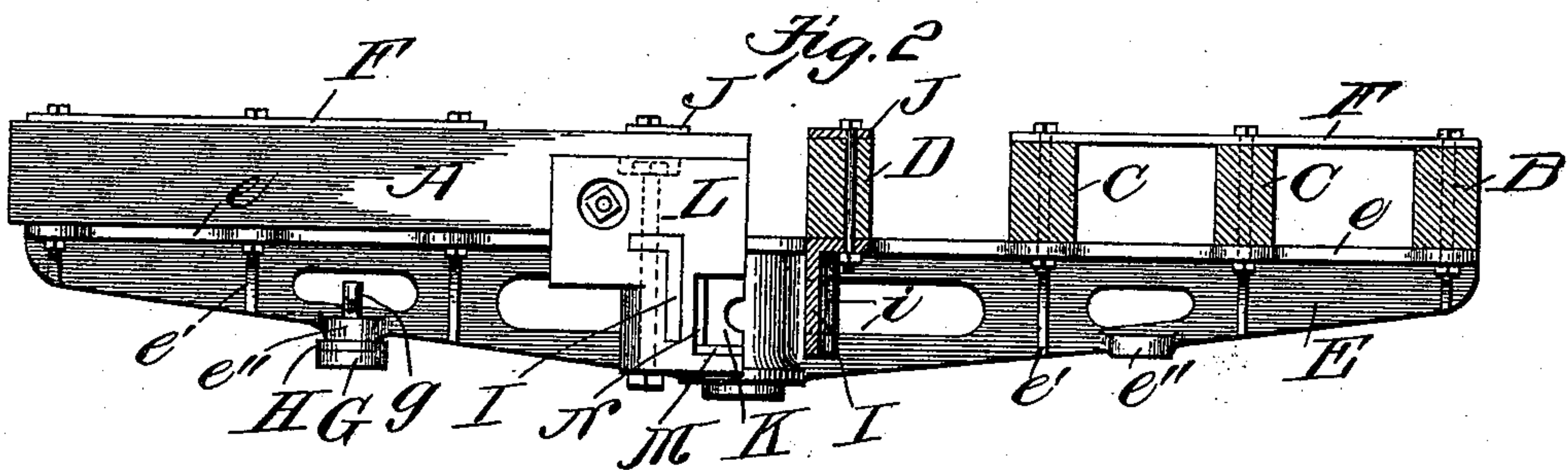
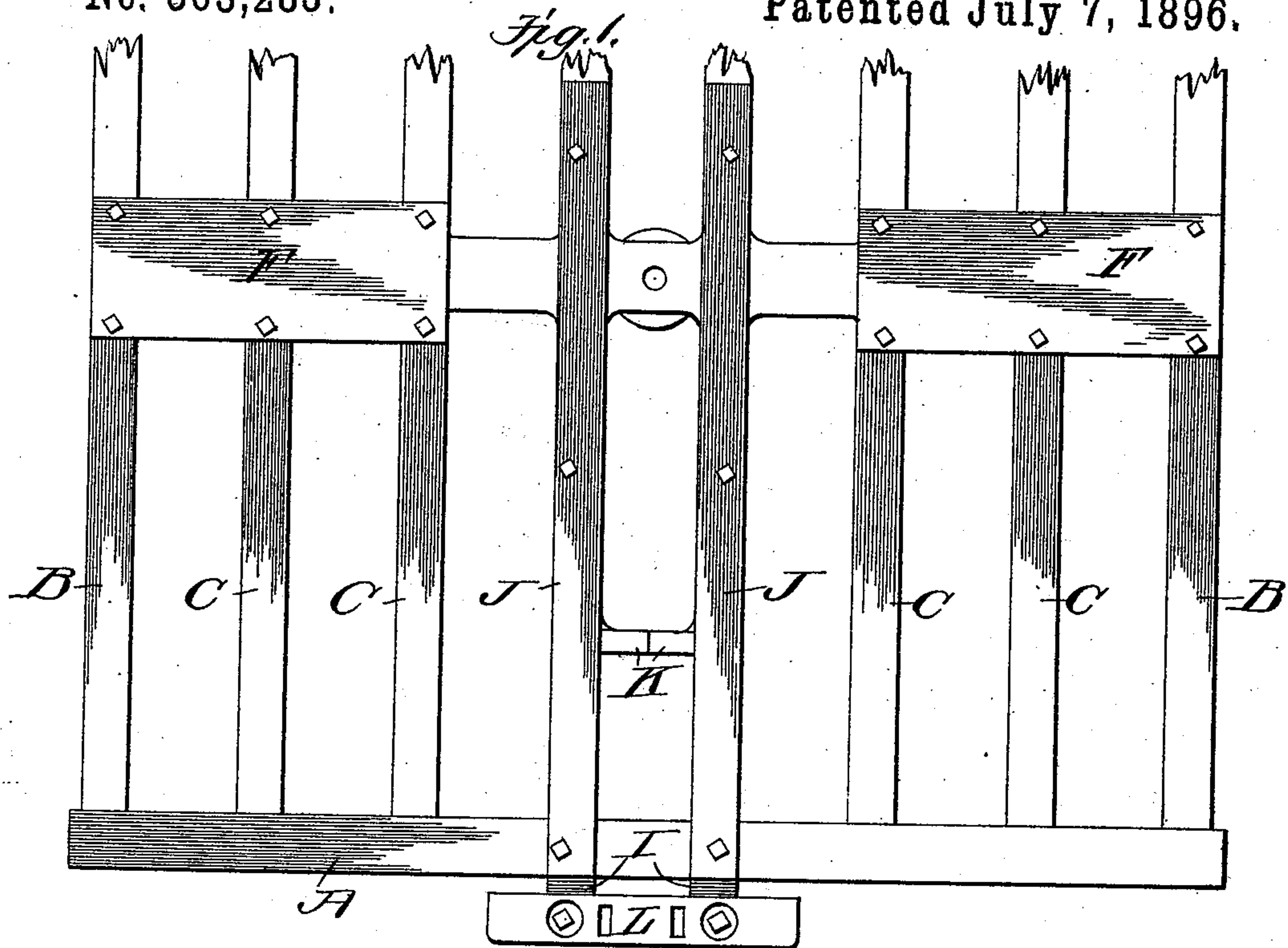
(No Model.)

2 Sheets—Sheet 1.

F. L. LAMKEY.
DRAFT RIGGING FOR RAILWAY CARS.

No. 563,283.

Patented July 7, 1896.



Witnesses:

J. R. Cornwall
Hugh H. Wagner

Inventor

Frank L. Lamkey

by Paul Bakewell
his atty.

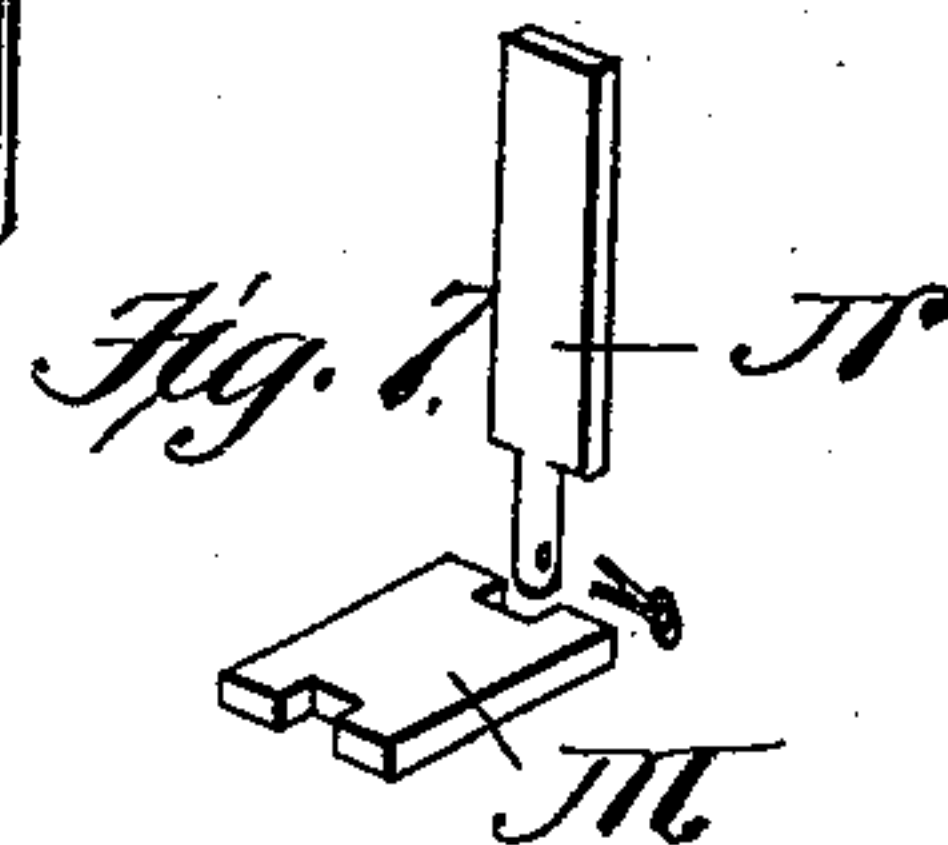
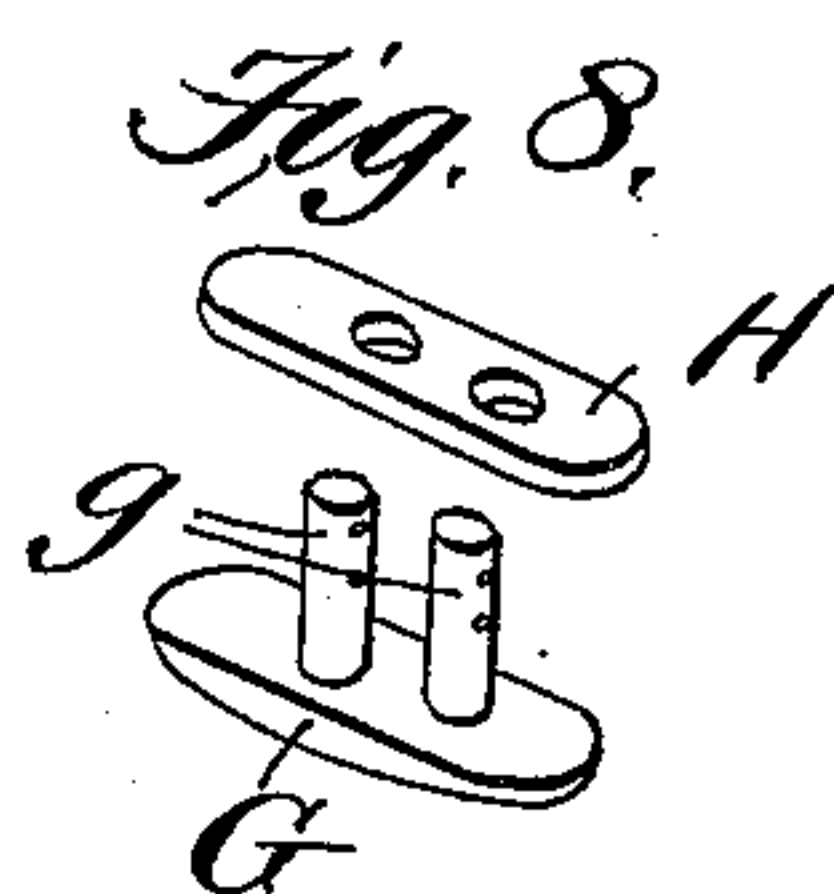
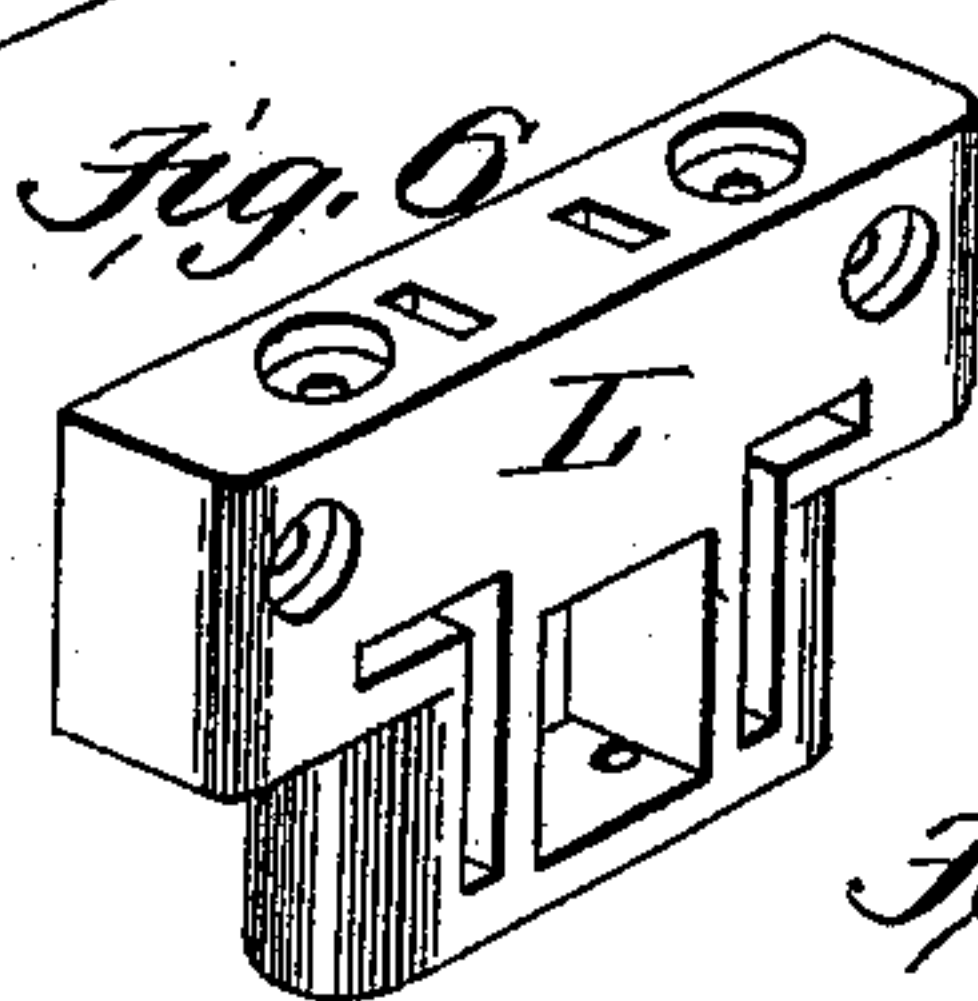
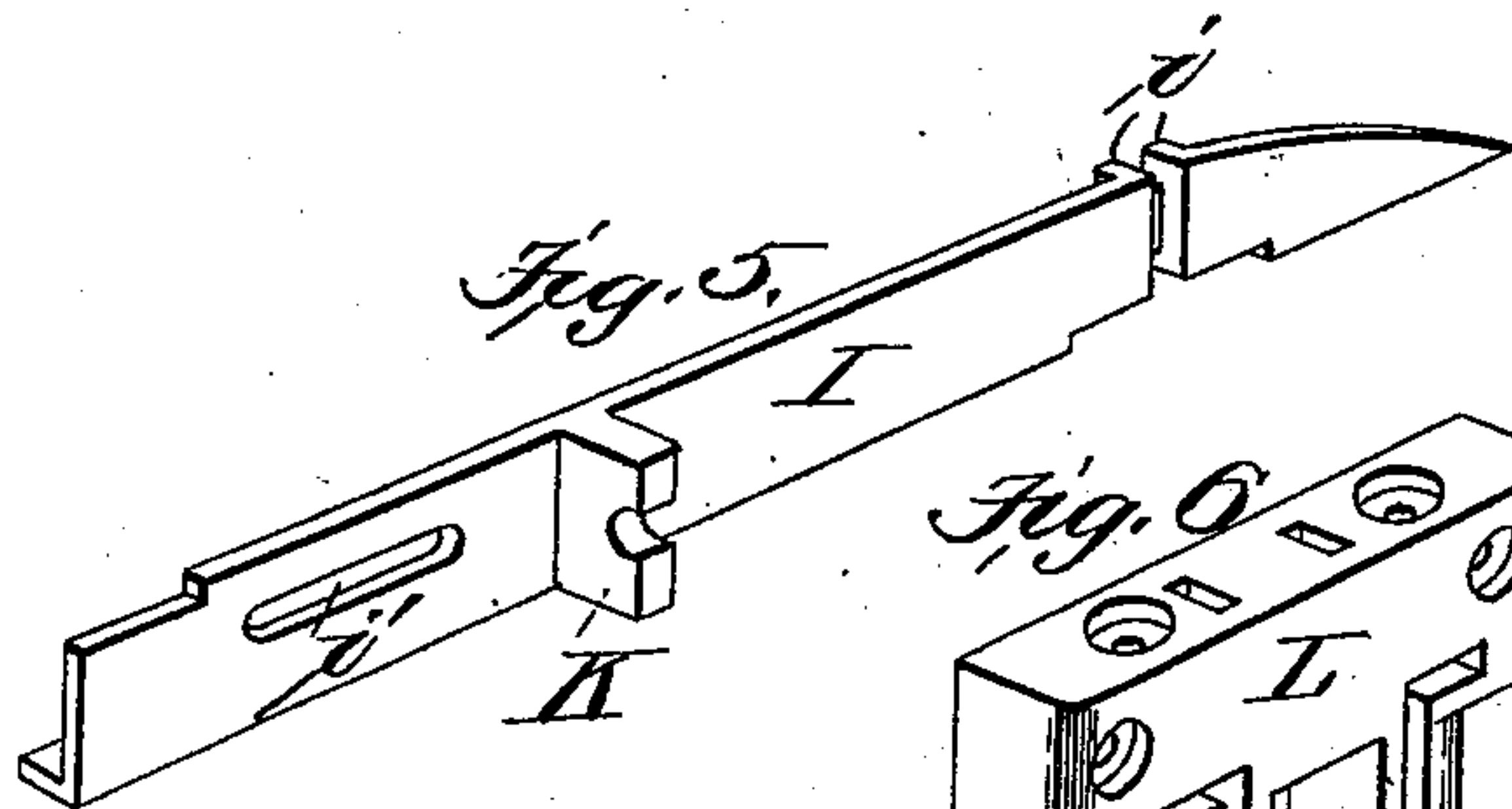
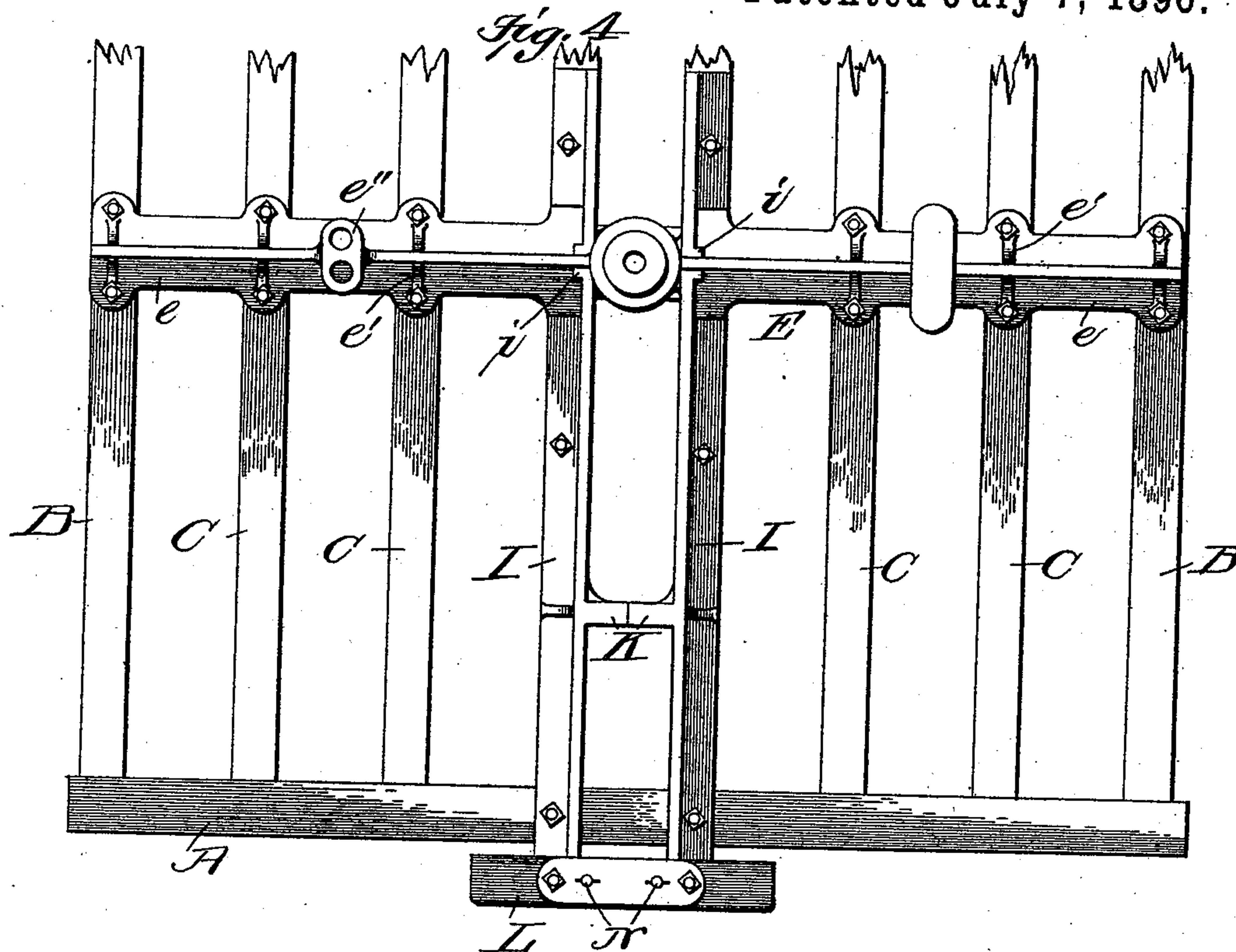
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by *Paul Bakewell*
Att'y.

UNITED STATES PATENT OFFICE.

FRANK L. LAMKEY, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF TO
PETER H. MURPHY, OF EAST ST. LOUIS, ILLINOIS.

DRAFT-RIGGING FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 563,283, dated July 7, 1896.

Application filed November 6, 1895. Serial No. 568,079. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. LAMKEY, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Draft-Rigging for Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a plan view of my improved draft-rigging. Fig. 2 is a front elevational view of the same, partly in section. Fig. 3 is a side elevational view of the same. Fig. 4 is a bottom plan view of the draft-rigging. Fig. 5 is a detail view of one of the draft-braces. Fig. 6 is a detail view of the combined dead-wood and carrying-arms as being made in one piece. Fig. 7 is a detail of the liners which are arranged in the draw-head opening in the carrying-arms. Fig. 8 is a detail view of the side body-bearing and its adjusting-liner.

This invention relates to a new and useful improvement in draft-rigging for railway-cars, the object being to construct a draft-rigging which will be simple, strong, and compact, and one which, when in use, will require but little attention by reason of its non-liability of becoming disarranged.

With this object in view the invention consists in construction, arrangement, and combination of the several parts, all as will hereinafter be described, and afterward pointed out in the claims.

In the drawings, A indicates the end sill, B the outside sills, C the intermediate sills, and D the draft-sills, of the framework of an ordinary car.

E indicates the body-bolster, which is secured to the under side of these sills a suitable distance from the end sill, which bolster has formed at about its middle a center bearing through which is passed the king-bolt for the truck. This bolster consists of a main vertical web, which is preferably centrally disposed, and an attaching base-flange *e*. The main web is braced at suitable points by the lateral web *e'*. The bolts which secure the base-flange to the sills are preferably placed as far apart from each other as possible in

order to preserve the strength of the sills, and to strengthen the tops of the sills I arrange plates F, through which said bolts pass, said plates acting as washers for the bolts. Arranged on the lower edge of the main web, at proper points, are lugs or ears *e''*, which are preferably perforated to receive pins or projections *g*, extending upwardly from the side bearing-plates G.

Side bearing-plates G are made adjustable by liners H, arranged therebetween, and the lugs *e''* and are held in their adjusted positions by cotter-pins passing through holes in the upwardly-extending projections above the lugs. By this arrangement, when the side-bearing-plate surfaces are worn, they are removed and one or more liners H are inserted to build up the bearing.

I indicates the draft-irons, which are preferably duplicates of each other, and are secured on the lower sides of the draft-sills. These draft-irons are of inverted-L shape in cross-section, and are secured in place by bolts passing through the horizontal members, the draft-sills, and through strap-irons J on top of the sills, which strap-irons act as washers and give strength to the structure. The horizontal members of these draft-irons are cut away near the rear ends and formed with a reduced portion in its vertical web, in which fits the horizontal base and main web of the body-bolster, the draft-iron being received in a cut-away portion of the body-bolster for this purpose. Lips *i* are formed on the draft-irons to afford a more extended bearing-surface against the main web of the body-bolster and to add strength to the parts at this point.

K indicates alining lugs extending from the inner faces of the draft-irons and formed with a central opening to receive the tail-bolt of the draw-bar, said lugs acting as a seat for the draw-bar spring.

The forward ends of the vertical webs of the draft-irons are slotted, as at *i'*, for the passage of the cross-bar of the continuous draw-bar attachment.

L indicates a combined dead-wood and carrier-arm which is fitted over the forward ends of the draft-irons and secured thereon by bolts which pass therethrough and through

the horizontal flanges of the draft-irons. This dead-wood also receives the ends of the brace-rods, which extend longitudinally of the car. The openings for these rods are shown in the
5 drawings, but not the rods themselves.

As stated before, block L forms the dead-wood and carrier-arms combined. The dead-wood, as is understood in ordinary constructions, consists of a block of hard wood faced
10 with an iron plate, through which passes the brace-rods. This block rests solidly against the end wall of the car, which is secured to the end sill. The term "carrier-arm" or "carrying-arm" relates to a U-shaped bar of
15 iron which is bolted to the under side of the dead-wood to support the coupler. There are many objections to this old form, by reason of its non-stability, insecurity, and liability to become disarranged. It is considered
20 unnecessary to give a catalogue of these objections, as they are too numerous to recite. It is sufficient to say that they exist, and the commonest is generally conceded to reside in the carrying-arm becoming detached, in
25 which event the coupler drops, and when attempt is made to couple with a running switch the coupler, being below the line, will not couple, but act as a lever to wrench the sills out of place, frequently with disastrous results.
30 My combined dead-wood and carrier-arm obviates this objection and insures the proper position of the coupler at all times. The opening for the draw-bar is provided with bottom and side liners, which may be removed
35 when worn and new ones inserted. The bottom liner M is formed with recesses in its ends, through which passes a reduced extension on the lower end of the side liners N. These side liners, as shown in Fig. 7, are flattened to afford
40 a wear-surface for the draw-bar. They are introduced in openings in the top of the dead-wood, and are held in place by cotter-pins, which pass through their lower ends below that portion of block L which performs the
45 function of the carrier-arm.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device may be made and substituted for those herein shown
50 and described without in the least departing from the nature and principle of my invention.

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

55 1. A body-bolster which is substantially T-shaped in cross-section, and having a center bearing about its middle and perforated lugs on its main web, all made of one piece, in combination with a side bearing-plate pro-

vided with extensions which fit in the perforations of said lugs, and liners; substantially as described. 60

2. The combination with a body-bolster, and draft-irons whose rear ends pass through openings in said bolster, said draft-irons having lips *i* on each side of the bolster to afford a more extended bearing-surface; substantially as described. 65

3. The combination with a body-bolster which is formed with a securing-flange and a central vertically-disposed web, of draft-irons of substantially inverted-L shape which are secured to the sills of the car and whose rear ends pass through openings in the body-bolster, the horizontal members of said draft-irons being cut away to receive the base-flange of the body-bolster, the vertical portions of which draft-irons are recessed to receive the vertical webs of the body-bolster; substantially as described. 70 75 80

4. The combination with a bolster, of draft-irons, the rear ends of which engage said bolster, and an integral dead-wood and carrier-arm with which the front ends of the draft-irons engage; substantially as described. 85

5. The combination with a bolster, of inverted-L-shaped draft-irons whose rear ends fit in openings in the bolster, and alining projections on said irons for receiving the tail-bolt of the coupler; substantially as described. 90

6. The combination with the draft-irons, of an integral dead-wood and carrying-arm mounted on their front ends, said dead-wood and carrying-arm being formed with an opening for the draw-bar, and liners in said opening; substantially as described. 95

7. The combination with an integral dead-wood and carrying-arm, which are provided with an opening for the draw-bar, of a liner having recesses in its ends, arranged in the bottom of said opening, and side liners which are introduced from above and which have projections extending through the recesses in the bottom liner to hold the latter in place; substantially as described. 100 105

8. The herein-described combined dead-wood and carrying-arm, formed with an opening to receive the coupler, and socketed openings to receive the front ends of the draft-irons; substantially as described. 110

In testimony whereof I hereunto affix my signature, in presence of two witnesses, this 30th day of October, 1895.

FRANK L. LAMKEY.

Witnesses:

F. R. CORNWALL,
HUGH K. WAGNER.