No. 755,942. PATENTED MAR. 29, 1904.

A. ROCKSTAD.

BOB SLEIGH ATTACHMENT.

APPLICATION FILED AUG. 1, 1903.

NO MODEL.

Fig. 1

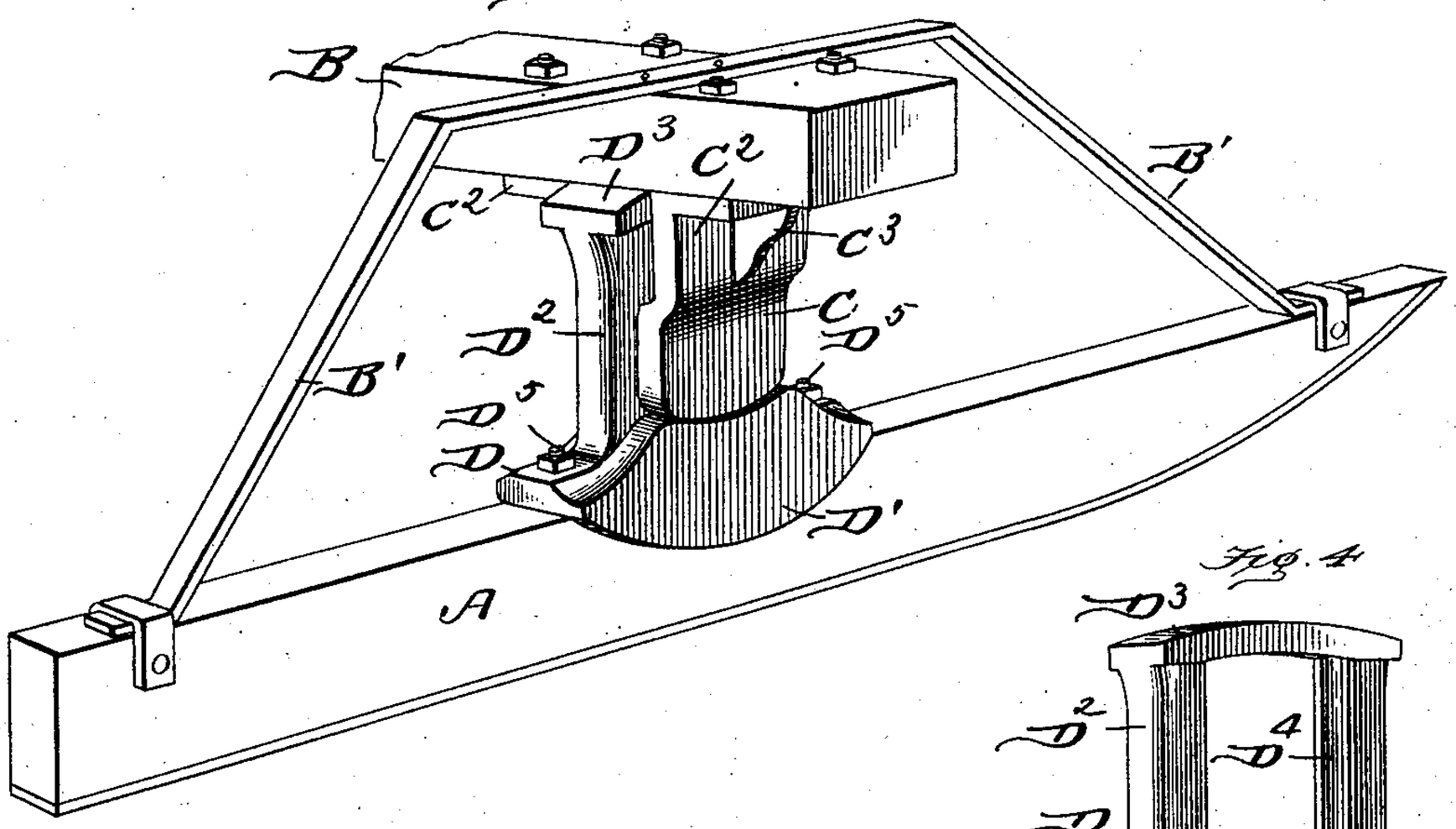


Fig. 4

Fig. 2.

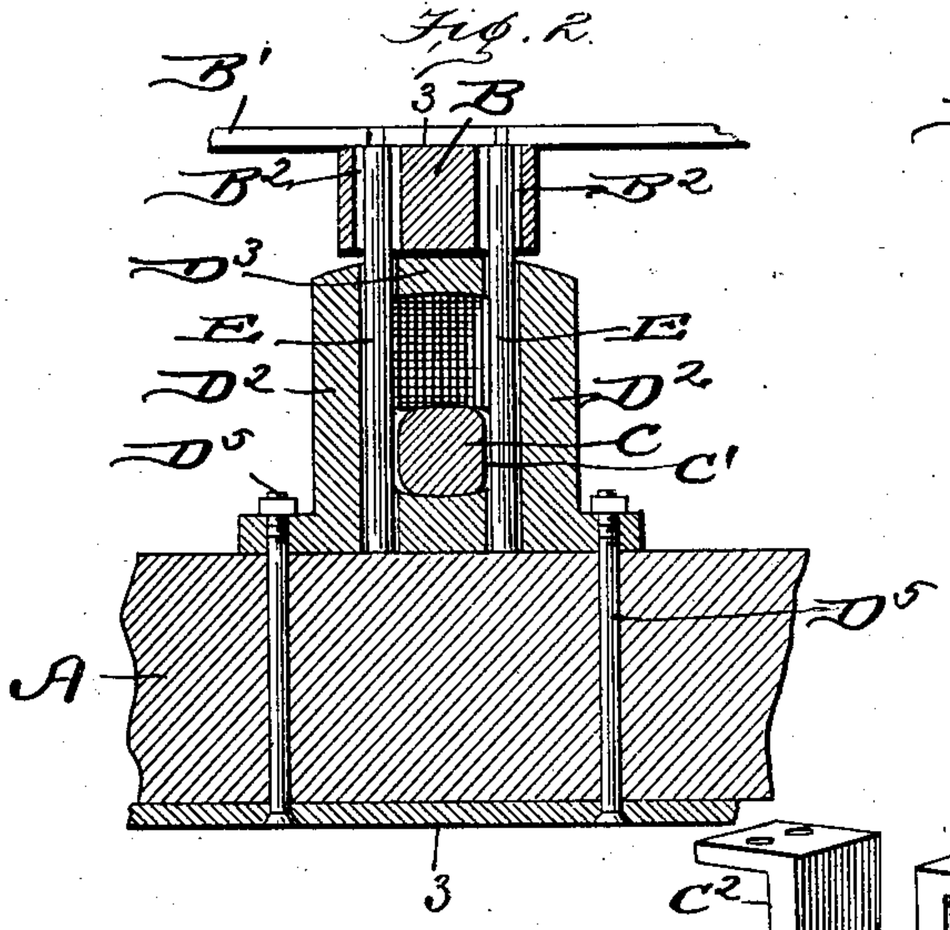


Fig. 3

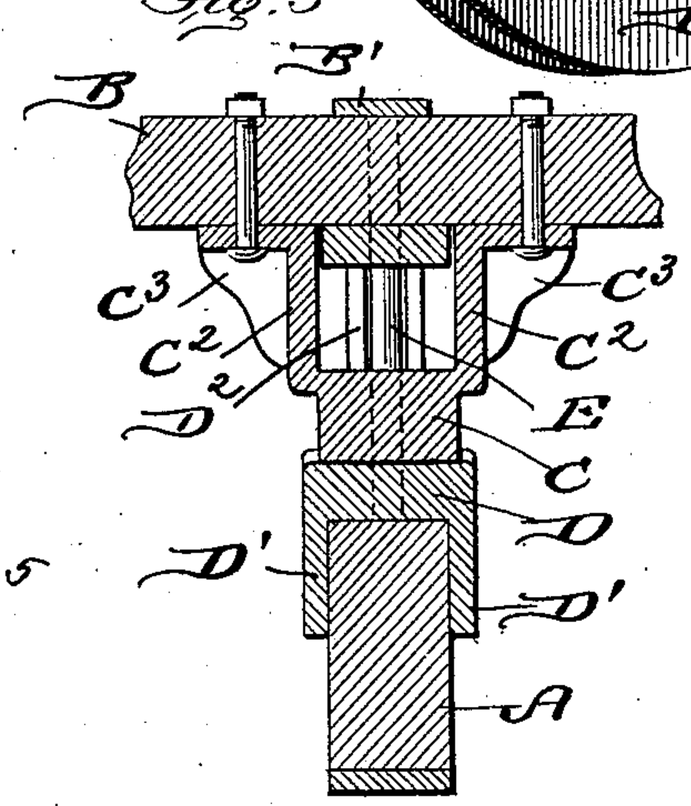
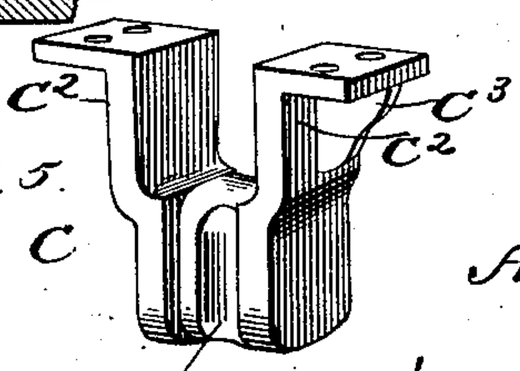


Fig. 5.



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No. 755,942. Patented March 29, 1904.

UNITED STATES PATENT OFFICE.

ABRAHAM ROCKSTAD, OF MOUNT MORRIS, WISCONSIN.

BOB-SLEIGH ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 755,942, dated March 29, 1904.

Application filed August 1, 1903. Serial No. 167,904. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM ROCKSTAD, a citizen of the United States, residing in the town of Mount Morris, in the county of Waushara and State of Wisconsin, have invented a new and useful Bob-Sleigh Attachment, of which the following is a specification.

My invention is an improvement in bob-sleigh attachments, and relates especially to a cast-iron knee which will not weaken the runner and will be easy to attach and prove strong and durable under such heavy work as logging, &c.

My invention consists of a knee cast in two parts, one part being secured to the runner and rocking on the beam and the other part being attached to the beam and rocking in a seat formed in the first part.

My invention consists also in the novel features of construction and combination of parts hereinafter described, particularly pointed out in the claims, and shown in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved knee shown assembled and in position. Fig. 2 is a central longitudinal section through same. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a perspective view of the runner-casting, forming the lower and central portion of the knee; and Fig. 5 is a perspective view of the beam-casting, forming the upper and outer portion of the knee.

In the drawings, A represents the sleigh-runner, B the transverse beam supported above the runner by the knee, and B′ the rave having its ends clamped to the runner and passing over the beam. These are all common parts of a sleigh, my invention residing in the construction of the knee.

The "beam-casting," so designated for the reason that it is attached to the beam B, is formed of a core C, of cast-iron, reduced in its central portion, having vertical channel-ways formed on its front and rear sides, one of which is shown at C′ in Fig. 5. From its ends rise vertical arms C^2, bent outwardly at their upper ends and having a strengthening-web at C^3. The runner-casting consists of a longitudinal horizontal body portion D, having curved depending side flanges D′. The body portion D rests on the upper surface of the runner A, the flanges D′ extending downward over the sides of the runners. Rising from adjacent each end of the body portion are the vertical standards D^2, having their tops connected by a slightly-curved cross-piece D^3. The cross-piece is curved to play freely under the beam B. The beam B has two vertical perforations, as shown at B^2, closed at the top by the rave-iron B′. The inner sides of the standards are grooved, as shown at D^4, and the body portion D and cross-piece D^3 are perforated in alinement with the grooves D^4. The body portion is arranged on the runner below the beam and is held firmly to the former by the bolts D^5. Rods E, of wrought-iron, rest in the grooves D^4, their lower ends extending into the perforations in the body portion and resting on the runner and extend upwardly loosely into the perforations B^2 of the beam. The upper beam-casting fits between the standards, the central portion of the core C resting on the body D, the channel-ways C′ permitting the core to partially envelop the rods E. The body D is slightly recessed between the standards, and the under surface of the core is curved to fit into this shallow recessed portion of the body and rocks therein. The arms C^2 rise on each side of the cross-piece D^3, and their angled portions are bolted to the beam B.

From the above description it will be seen that this construction provides a double rocking motion, the beam rocking on the cross-piece D^3 and the upper casting rocking on the lower casting. This permits the knee to give to an extent sufficient for it to accommodate itself to a sudden strain or a shifting of the load.

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

1. The combination with a sleigh-runner, of a casting fitting on said runner, standards rising from said casting, a curved, integral cross-piece connecting the tops of the standards, a beam resting on said cross-piece, a second casting fitting between the standards and rocking on the first-mentioned casting, and arms extending upwardly from the second casting on

each side of and flush with the central portion of the cross-piece, said arms being secured to the beam.

2. The combination with a sleigh-runner, of a casting having a body portion resting on said runner, and having flanges fitting over the sides of the runner, standards rising from the body portion, a cross-piece having a curved upper surface, a transverse beam rocking thereon, and upper casting rocking on the body portion of the first-mentioned casting, and arms extending upwardly from the upper casting, said arms being connected to the beam.

3. An attachment of the kind described comprising a casting having a body portion, standards adjacent each end of said body portion, said standards having grooves formed on their inner sides, a cross-piece connecting the tops of the standards and having perforations in alinement with the grooves of the standards, a casting having a core adapted to rock on the body portion, of the first-mentioned casting between the standards and having channel-ways adapted to register with the grooves in the standards, arms extending upwardly from said core, upon each side of the cross-piece, the top of the arms being substantially in the plane of the cross-piece and rods fitting in the grooves of the standards and channel-ways of the core, and extending upward through and above the cross-piece.

4. The combination with a sleigh-runner and a transverse beam vertically perforated, a casting having a body portion resting on the runner and flanges fitting over the runner, standards adjacent each end of the casting, the inner sides of said standards being grooved, a cross-piece having a curved upper surface and perforations alining with the grooves of the standards, the said beam resting on the cross-piece and the perforations of the beam alining with those of the cross-piece, a casting having a core centrally reduced and rocking on the body of the first-mentioned casting intermediate the standards, arms rising from said core and extending upward on the sides of the cross-piece, said arms being attached to the beam, and rods resting in the grooves of the standards, and extending upward through the cross-piece into the perforations of the beam.

ABRAHAM ROCKSTAD.

Witnesses:
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JOHN YOUNGMAN.