

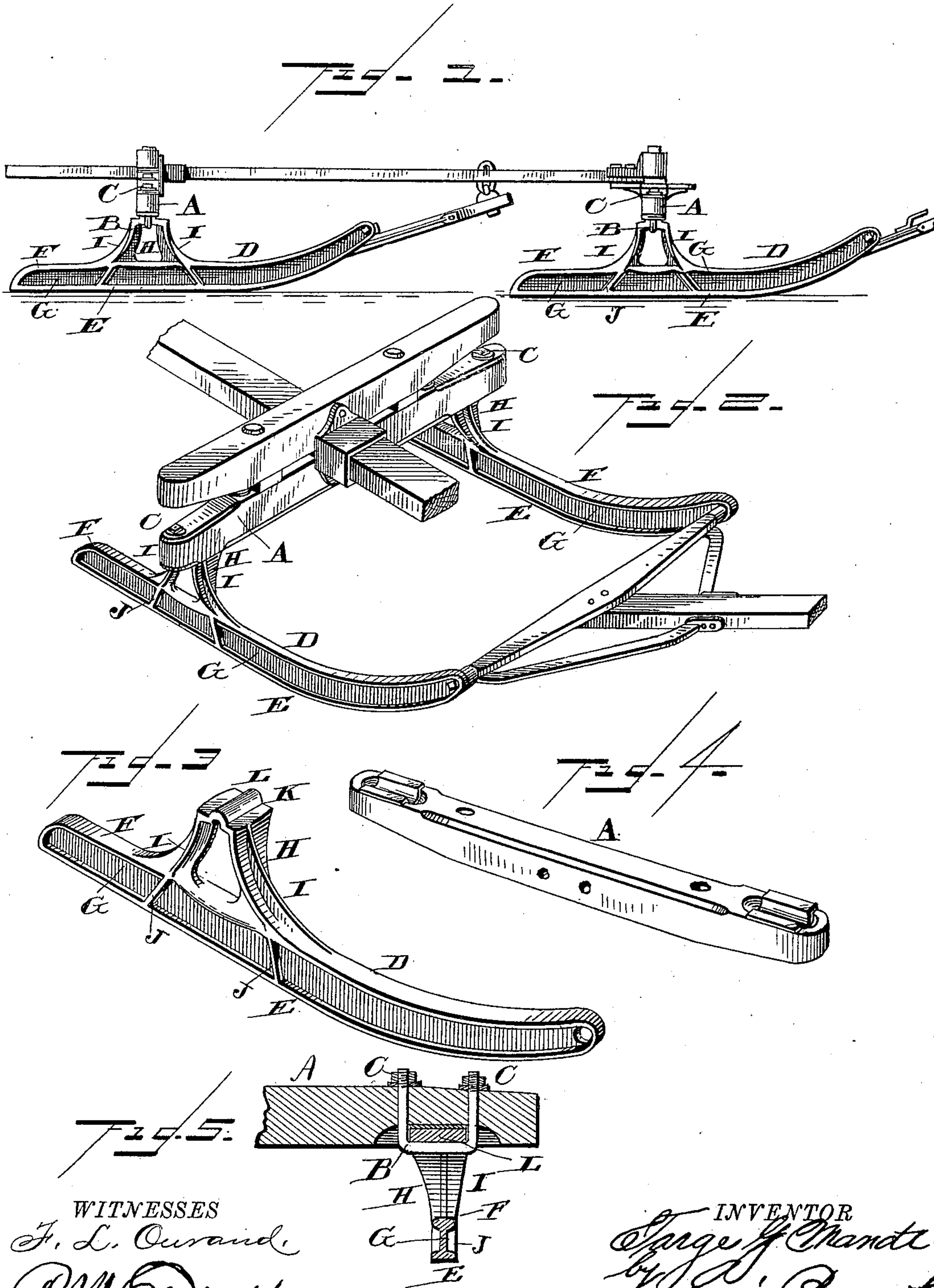
(No Model.)

T. G. MANDT.

BOB SLED.

No. 390,088.

Patented Sept. 25, 1888.



WITNESSES

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# UNITED STATES PATENT OFFICE

TARGE G. MANDT, OF STOUGHTON, WISCONSIN.

## BOB-SLED.

SPECIFICATION forming part of Letters Patent No. 390,088, dated September 25, 1888.

Application filed May 23, 1888. Serial No. 274,827. (No model.)

*To all whom it may concern:*

Be it known that I, TARGE G. MANDT, a citizen of the United States, residing at Stoughton, in the county of Dane and State of Wisconsin, have invented certain new and useful Improvements in Bob-Sleds; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of my improved bob-sled. Fig. 2 is a perspective view of one of the bobs detached. Fig. 3 is a perspective view of one of the runners. Fig. 4 is a similar view of the under side of the cross piece or beam to which the knees of the runners are attached, and Fig. 5 is a vertical transverse sectional view through the end of the beam and the knee.

Like letters of reference denote corresponding parts in all the figures.

My invention has relation to that class of bob-sleds in which the knees are in one piece or integral with the runners, but fastened movably at their upper ends to the beam or cross-piece for the purpose of admitting of the runners oscillating or rocking under the load, so that they may adapt themselves to any unevenness in the road; and it consists in the improved construction of the knees and runners, as will be hereinafter more fully described, and particularly pointed out in the claims.

Reference being had to the accompanying drawings, the letter A designates the cross-piece or beam of the bobs, which are provided near their outer ends with bails or staples B, the ends of which are secured upon the beams by nuts C, substantially as shown and described in my Letters Patent No. 353,569, dated November 30, 1886, and for precisely the same purpose—viz., to form a movable hinge or bearing for the runners. The latter (shown at D) are made of cast metal, preferably cast-iron, having a bottom flange, E, which forms the shoe, and an upper laterally-projecting re-enforcing flange, F, overlapping the central web, G. The knee (shown at H) is cast integral with the body of the runner,

and is provided with two laterally-projecting re-enforcing webs or flanges, I I, which, after merging into the re-enforcing top flange, F, of the runner, are continued obliquely across the web G of the latter, as shown at J J, the lower ends of these re-enforcing webs J J merging into the bottom flange or shoe, E. The upper part of the knee forms a flat bearing, K, provided on its middle with a semi-cylindrical box or bearing, L, adapted to engage and swing upon the bail or staple B, by means of which the knee, with its runner, is secured movably to the under side of the beam in the same manner as in the sled described in my Letters Patent No. 353,569, hereinbefore referred to. By this construction of the knee and runner in one piece, provided with the peculiarly-arranged re-enforcing webs or flanges, as hereinbefore described, I construct a sled of great strength and durability and at a comparatively small cost. Moreover, by furnishing the runners and knees to farmers, small manufacturers, and others, any person of ordinary skill and intelligence will be able to build a sled without the employment of skilled labor.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. As an improved article of manufacture, the hereinbefore-described runner for sleds, cast in one piece with the knee and provided with the semi-cylindrical box L, bearing K, and re-enforcing webs I I and J J, the latter being a continuation of the former, substantially as and for the purpose shown and set forth.

2. The combination, with the sled having the downwardly-projecting hinge or bail B, of the cast-metal knee cast in one piece with the runner and provided with the semi-cylindrical box L, bearing K, and re-enforcing webs I I and J J, the latter being a continuation of the former, substantially as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

TARGE G. MANDT.

Witnesses:

AUGUST PETERSON,  
R. M. ELLIOTT.