

J. E. COUTANT.
Sled Brake.

No. 104,429.

Patented June 21, 1870.

Fig. 1.

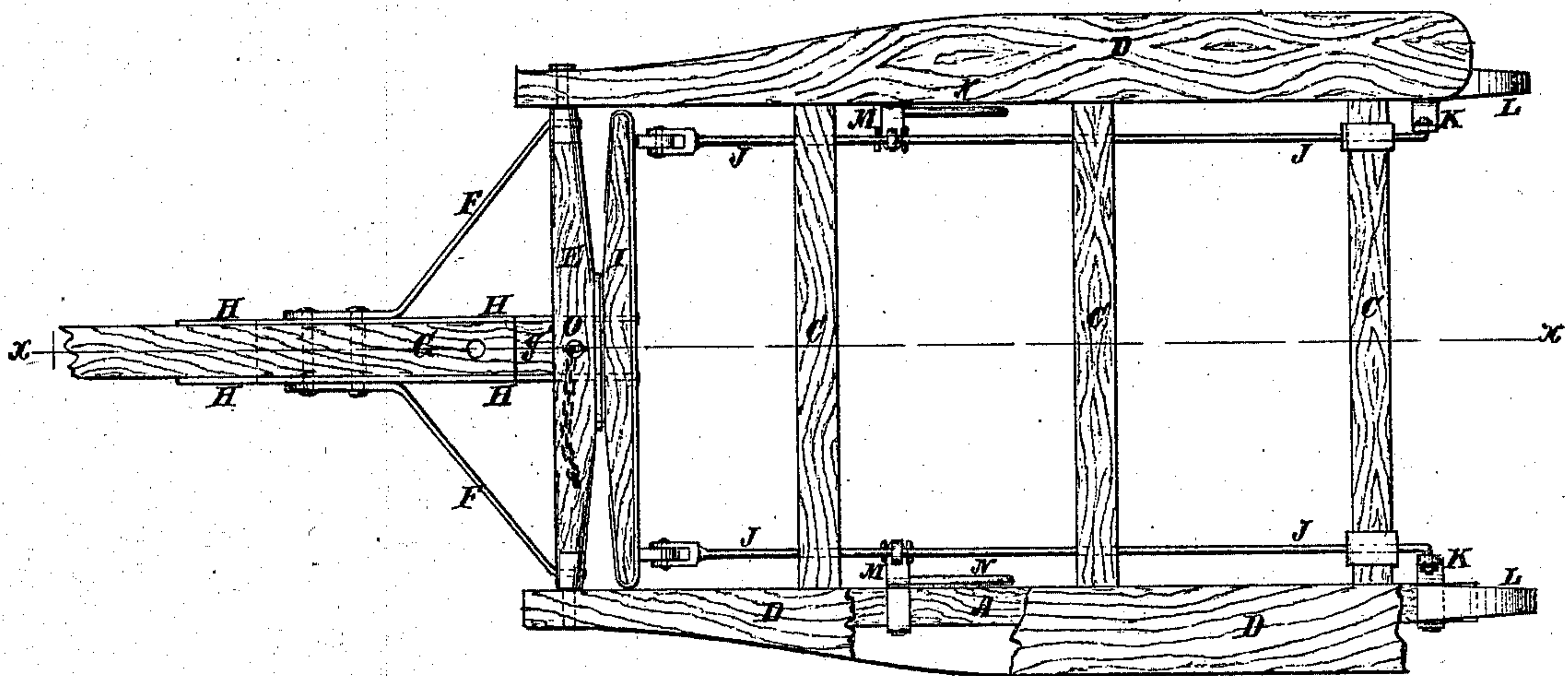
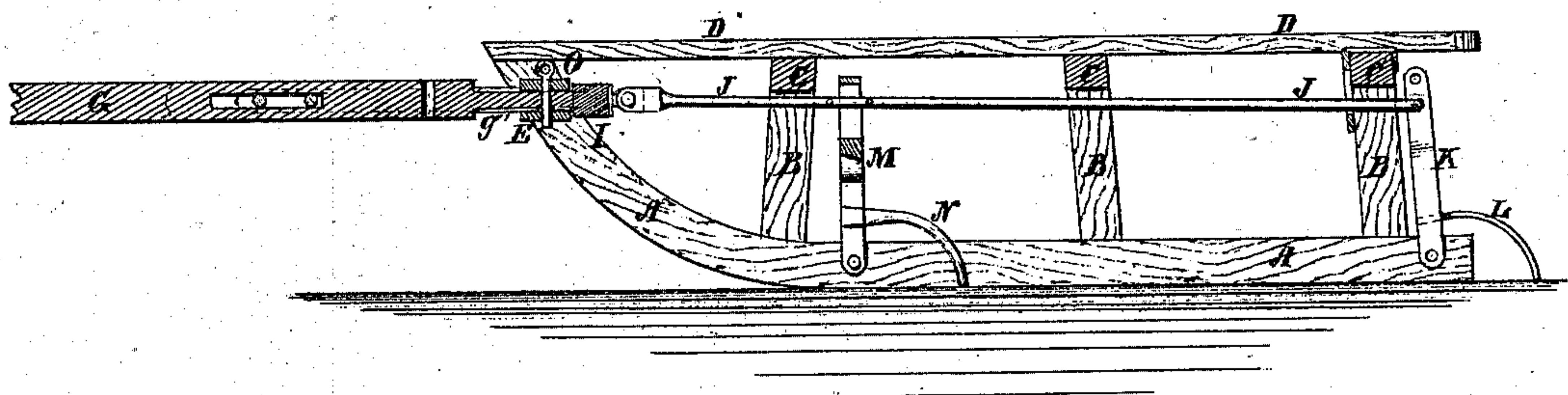


Fig. 2.



Witnesses:

A. Bennerhendorf
L. S. Mabee

Inventor:

J. E. Coutant
PER *Wm. L. [Signature]*
Attorneys.

United States Patent Office.

JOHN E. COUTANT, OF RONDOUT, NEW YORK.

Letters Patent No. 104,429, dated June 21, 1870.

IMPROVED SLED-BRAKE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOHN E. COUTANT, of Rondout, in the county of Ulster and the State of New York, have invented a new and useful Improvement in Sled-Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 is a top or plan view of a sled, to which my improved brake has been attached, parts of one of the raves being broken away to show the construction.

Figure 2 is a vertical longitudinal section of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved brake for attachment to bob and other sleds, which shall be simple in construction, effective in operation, and conveniently operated, being worked by the action of the horses in holding back the sled; and

It consists in the construction and combination of the various parts of the brakes, as hereinafter more fully described.

A are the runners;

B are the knees;

C are the beams; and

D are the raves of the sled, about the construction of which parts there is nothing new.

E is the tongue-roller, which is pivoted to the forward end of the sled in the ordinary manner.

F are the tongue-braces, the rear ends of which are secured to the end parts of the roller E in the ordinary manner, and the forward ends of which are connected to the tongue G, by bolts passing through a slot in the said tongue G, said slot being so arranged that when the draft is applied, the rear bolt may rest against the rear end of the said slot.

Upon the rear end of the tongue G is formed a long tenon, *g'*, which passes through a mortise in the middle part of the roller E, said mortise being made of such a size that the tenon *g'* may work freely in it.

The mortise in the roller E is made enough longer than the breadth of the tenon *g'* to receive the plates H, which are attached to the sides of the tongue G.

The plates H are securely bolted to the sides of the tongue, and their forward ends extend beyond the slot in the tongue G, and are slotted to correspond with the said slot.

The rear parts of the plate H extend along and cor-

respond with the edges of the tenon *g'*, and project beyond the end of said tenon, to pass through the roller or cross-bar I, to which they are secured, holding the said cross-bar close up against the end of the said tenon, by nuts screwed upon their projecting ends, or by being riveted or headed down upon the rear side of the said cross-bar.

To the rear side of the ends of the cross-bar I are jointed or pivoted the forward ends of the rods J, which pass back through guides, attached to the beams of the sled, and to the rear ends of which are pivoted the upper ends of the levers K, the lower ends of which are pivoted to the rear ends of the runners A, and to which, near their lower ends, are attached, or upon them are formed the dogs L.

The dogs L are curved, to enable them to pass down over the ends of the runners A, to come in contact with the road-bed.

The rods J pass through slots in the upper parts of the lever M, the movement of which upon the said rods is limited by pins or other stops, passed through or attached to the rods J, as shown in figs. 1 and 2.

The lower ends of the levers M are pivoted to the runners A, and to them, near their lower ends, are attached, or upon them are formed dogs N, which are curved, as shown in fig. 3.

By this construction, when draft is applied to the sled, the dogs are raised and held away from the road-bed, but should the sled press forward upon the horses, or the horses press back upon the sled, the effect will be to force down the dogs into the road-bed, and thus retard or stop the sled.

O is a bolt connected with the roller E, by a short chain, and which, when the tongue is drawn forward, may be passed through a hole in the roller E, and in the tenon *g'* of the tongue G, as shown in figs. 1 and 2.

This enables the sled to be backed without applying the brakes.

Having thus described my invention,

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

The slotted and tenoned tongue G *g'*, plate H, and cross-bar I, combined with rods J and brakes K L, all relatively constructed and arranged upon the sled, as shown and described, and for the purpose specified.

JOHN E. COUTANT.

Witnesses:

A. T. DOUGLAS,

ROBERT J. PENNY.