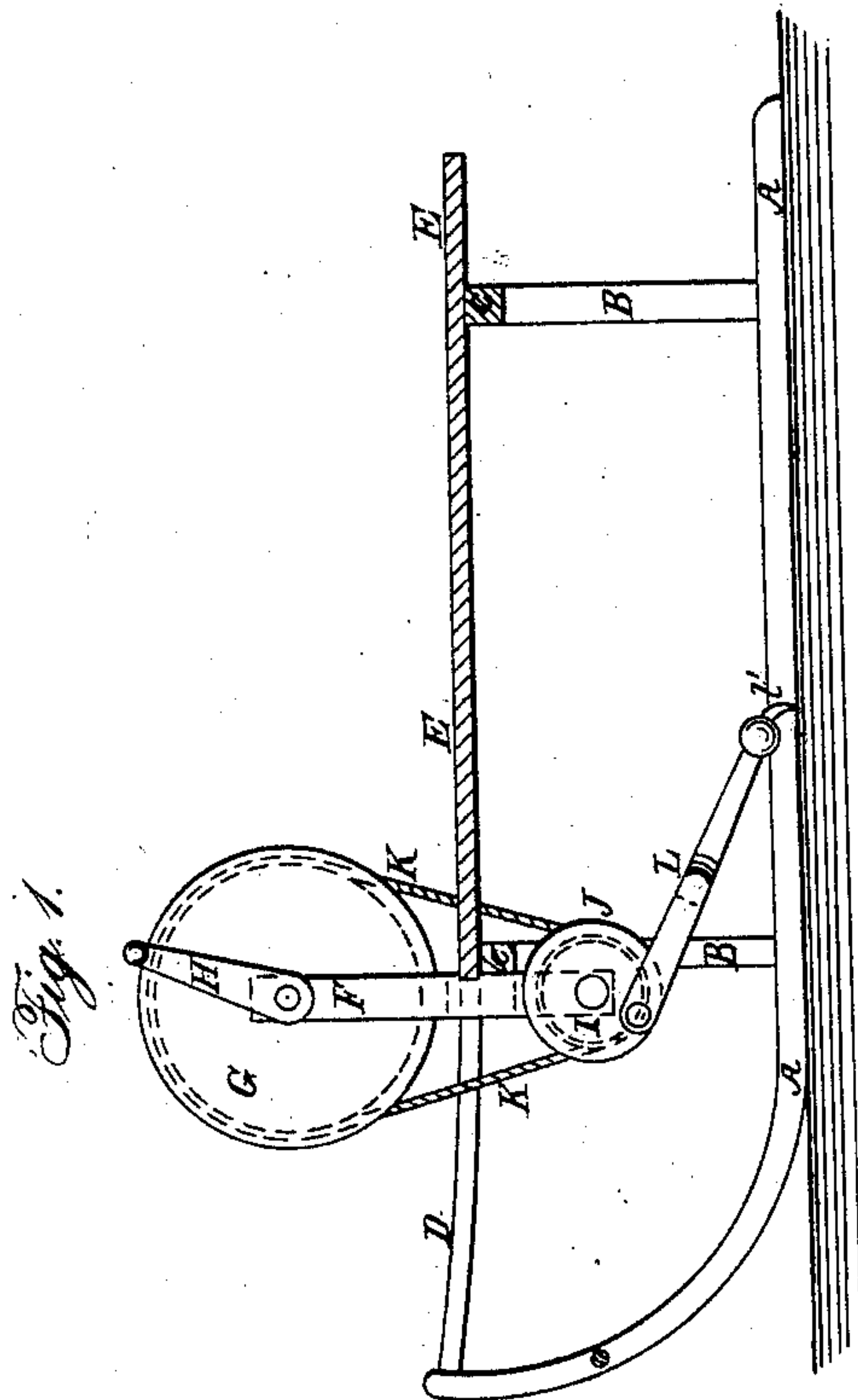
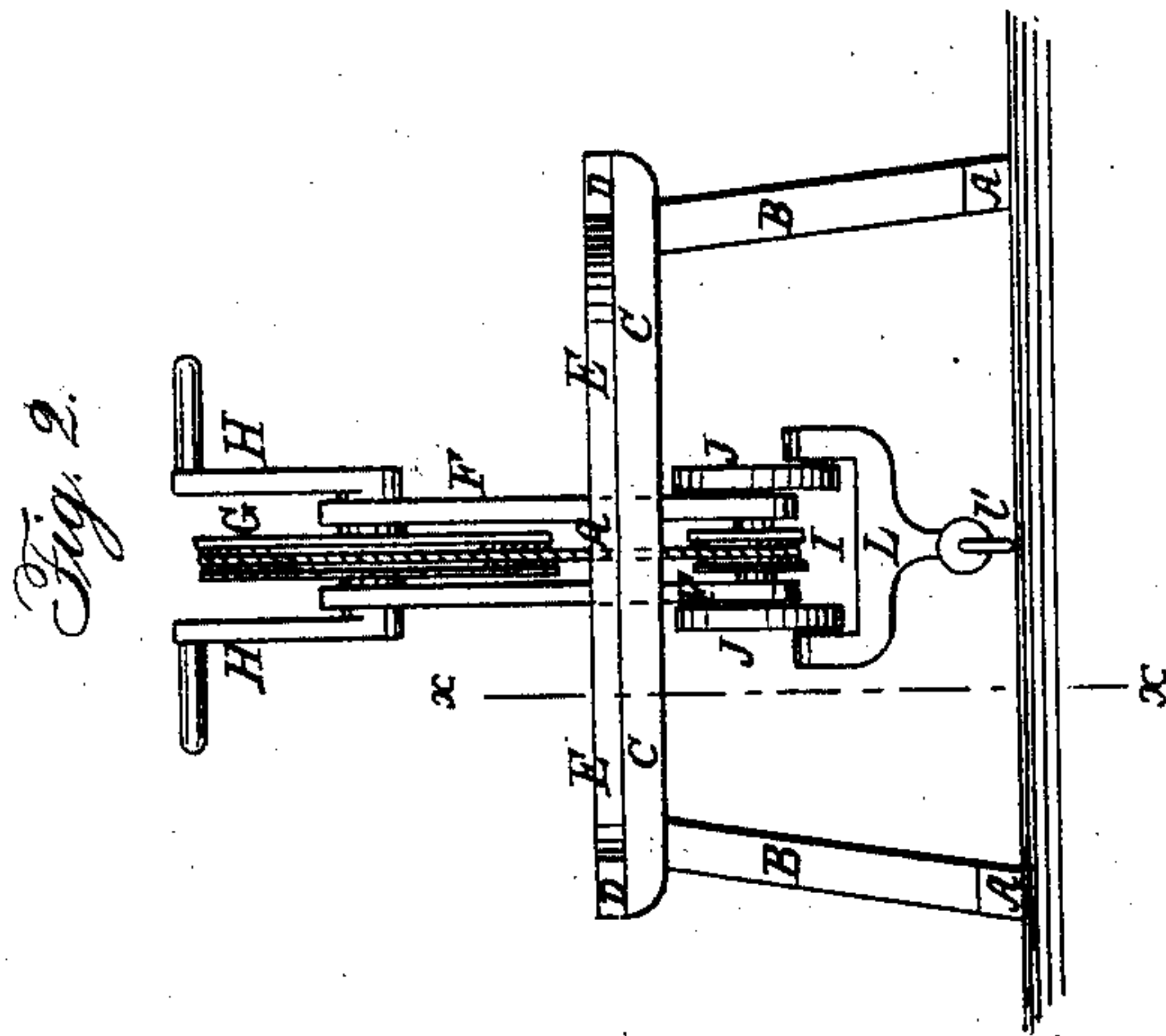


G. H. KIRK.

Ice-Sled.

No. 62.427.

Patented Feb. 26, 1867.



Witnesses:

F. A. Jackson
J. A. Serwin

Inventor:

Geo. H. Kirk.
Per *Munn & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE H. KIRK, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ICE-SLEDS.

Specification forming part of Letters Patent No. 62,427, dated February 26, 1867.

To all whom it may concern:

Be it known that I, GEORGE H. KIRK, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and Improved Ice-Sled; 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 drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved sled, taken through the line *xx*, Fig. 2. Fig. 2 is a rear end view of the same.

Similar letters of reference indicate like parts.

My invention has for its object to so improve the construction of boys' sleds that they may be propelled rapidly and easily over the ice or snow by the boys riding thereon; and it consists in the arrangement and combination of the toothed arm, crank-wheels, pulleys, and band with each other and with the frame of the sled, as hereinafter more fully described.

A are the runners, B the knees, C the beams, D the raves, and E the bottom boards, of the sled, about the construction of which parts there is nothing new.

F is an upright bar securely attached to a beam, C, of the sled. The upper and lower ends of the upright F are slotted vertically, as shown in Fig. 2.

G is a pulley pivoted in the slot in the upper end of the upright F, the journals of which project through the said bar, and to their ends are attached the cranks H, by means of which the apparatus is operated.

I is a pulley pivoted in the slot in the lower

end of the upright F, the journals of which extend out through the said bar, and to their ends are attached the crank-wheels J.

K is a band passing around the pulleys G and I, by which motion is communicated from the pulley G to the pulley I.

L is an arm, the upper end of which is branched, as shown in Fig. 2, and pivoted to the crank-pins of the crank-wheels J. The lower end of the arm L terminates in or has securely attached to it a prong or tooth, *l'*, one or more, made in such a form as to take hold of the surface of the snow or ice over which the sled is to be propelled and push the said sled forward.

If desired, the lower end of the arm L may be weighted, as shown in Figs. 1 and 2, to cause the prong or tooth *l'* to take a surer hold upon the surface of the ice.

If desired, the pulleys G and I and band K may be replaced by gear-wheels, the teeth of which mesh into each other.

By this construction the boy can propel his sled rapidly over the surface of the ice, thus combining exercise and pleasure.

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

The combination and arrangement of the toothed arm L, crank-wheels J, and pulleys G I, and band K or equivalent, with each other and with the frame of the sled, substantially as herein shown and described, and for the purpose set forth.

GEO. H. KIRK.

Witnesses:

WM. H. SHICK,
M. A. CONDEN.