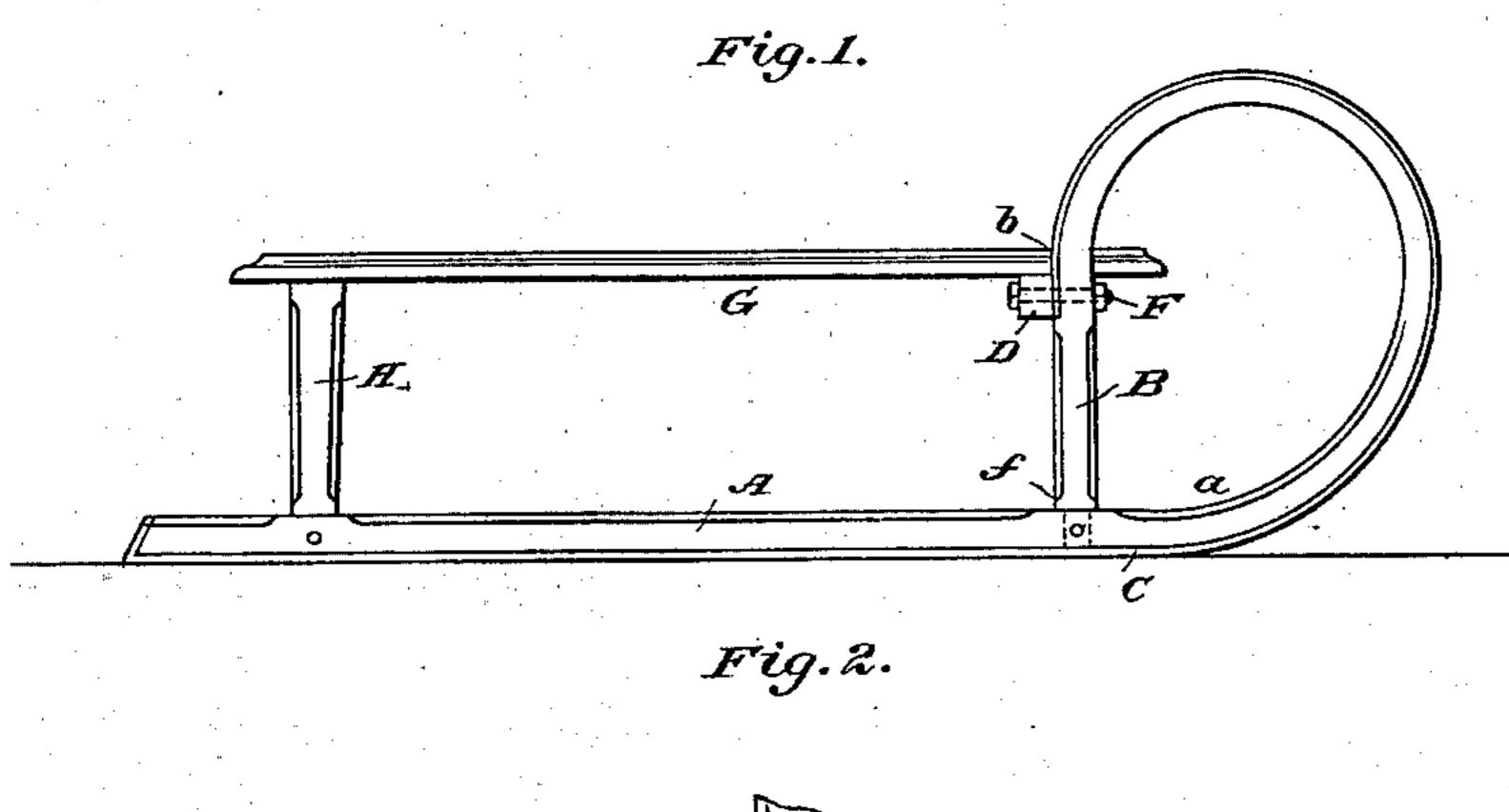
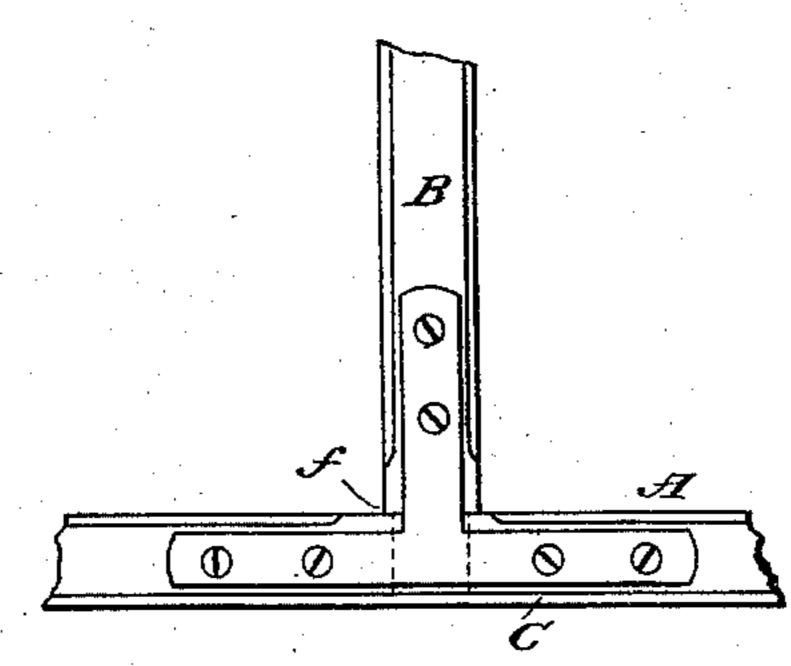
(No Model.)

F. M. PRIESTLEY. Hand Sled.

No. 238,154.

Patented Feb. 22, 1881.





Attest:

R.F.Barnes Swiling

Inventor:

Towest M. Priestly,

by Elei, Grean,

Attorney

## United States Patent Office.

FORREST M. PRIESTLEY, OF GRAND RAPIDS, MICHIGAN.

## HAND-SLED.

SPECIFICATION forming part of Letters Patent No. 238,154, dated February 22, 1881.

Application filed August 7, 1880. (No model.)

To all whom it may concern:

Beit known that I, FORREST M. PRIESTLEY, of Grand Rapids, in the county of Kent and State of Michigan, have invented a new and useful Improvement in Hand-Sleds; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to hand-sleds; and it consists in an improved construction of the frame, whereby a stronger and more durable sled is obtained, while the construction is simplified and the expense of manufacture reduced.

In the accompanying drawings, Figure 1 represents a side view of the sled; and Fig. 2 a separate view, showing the peculiar brace

The ordinary manner of constructing handsleds is to connect the bent runners with the
other part of the frame by straight knees, any
suitable number of which may be used, and
which have in all cases been separate from the
runners and required to be connected thereto
by various devices. The increase of the number of parts composing the sled, of course, re-

duced its strength and made the necessity greater for frequent repairs. In my device the bent runner itself, or a continuation thereof, forms the front knee of the sled.

In the drawings, A represents the runner, which may be constructed of either wood or metal. This runner is bent from the point marked a to the point b in a curve approximately to the arc of a circle, and at the point b, where it is straightened, and from there to the point f, where it is secured to the straight

portion of the runner, it forms the front knee, B. The iron or steel shoe C is secured to the

runner in the usual way, and is attached to it the entire distance to a point below the top of 40 the sled. A cross-beam, D, connects the two knees, and a bolt or rivet, F, passes through the knee, shoe, and the cross-beam, being secured by a nut or riveted on the inside of the latter. The top G and knees H are of the 45 usual construction.

In order to provide for a secure joint at the point where the end of the runner forming the knee is secured to itself I employ the brace shown in Fig. 2. It consists of a strip of 50 sheet metal of T form, one arm being secured to the outside of the knee and the other secured to the side of the runner. This makes a perfectly strong and secure joint at that point. This brace may also be applied to the 55 other knees, if desired.

The advantages of my device consist, principally, in the increased strength which is given the structure, and in the extreme simplicity and economy of material, which materially reduces the cost of manufacture.

Having thus described my invention, what I claim is—

1. A hand-sled in which the runner is bent so as to form the forward knee, which supports 65 the frame, substantially as described.

2. In combination, the runner A, forming the knee, the shoe C, the cross-beam D, and the bolt or rivet F, as set forth.

In testimony whereof I have signed my 70 name to this specification in the presence of two subscribing witnesses.

FORREST M. PRIESTLEY.

Witnesses:
CHARLES R. BACON,
JAMES A. HUNT.