

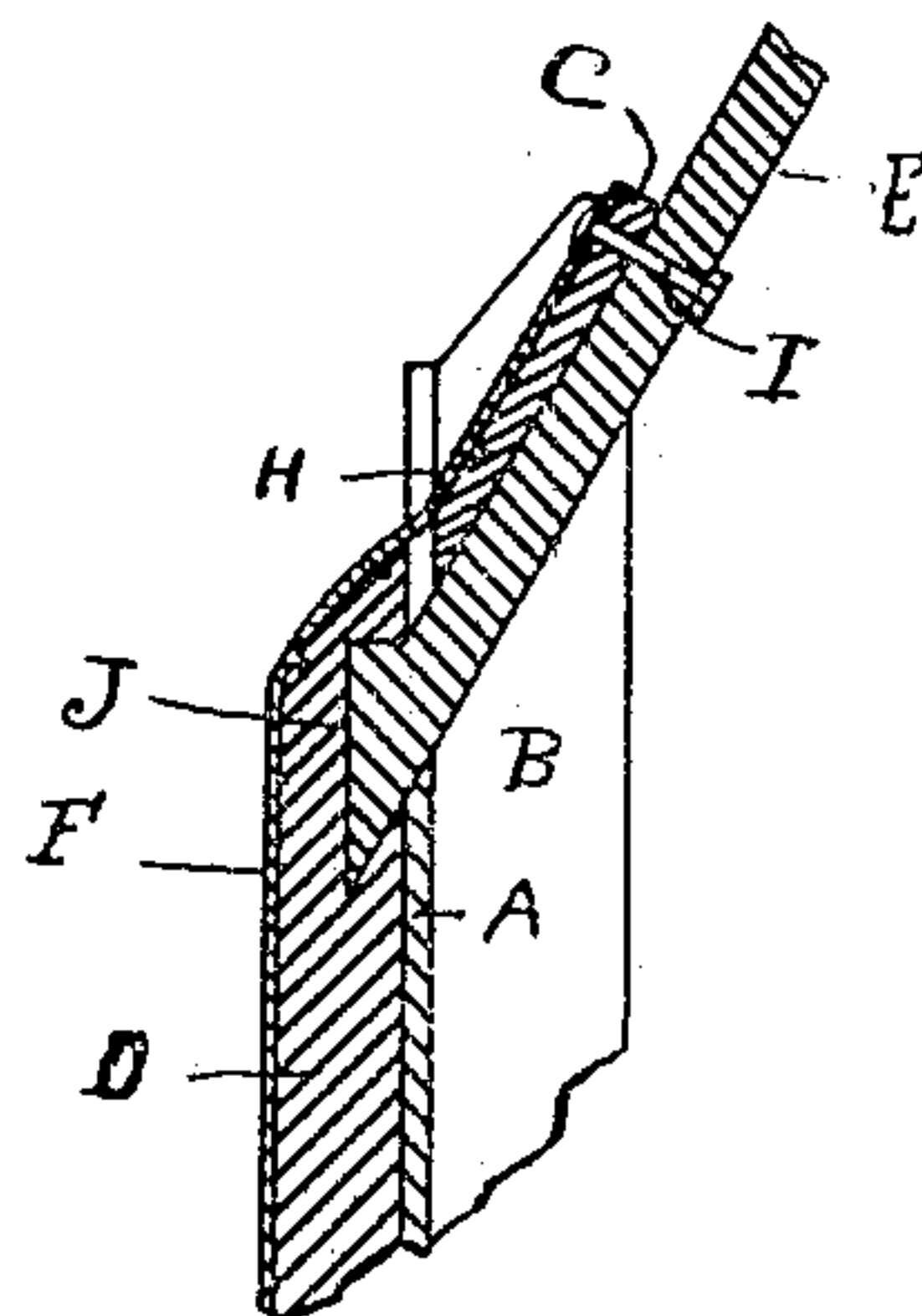
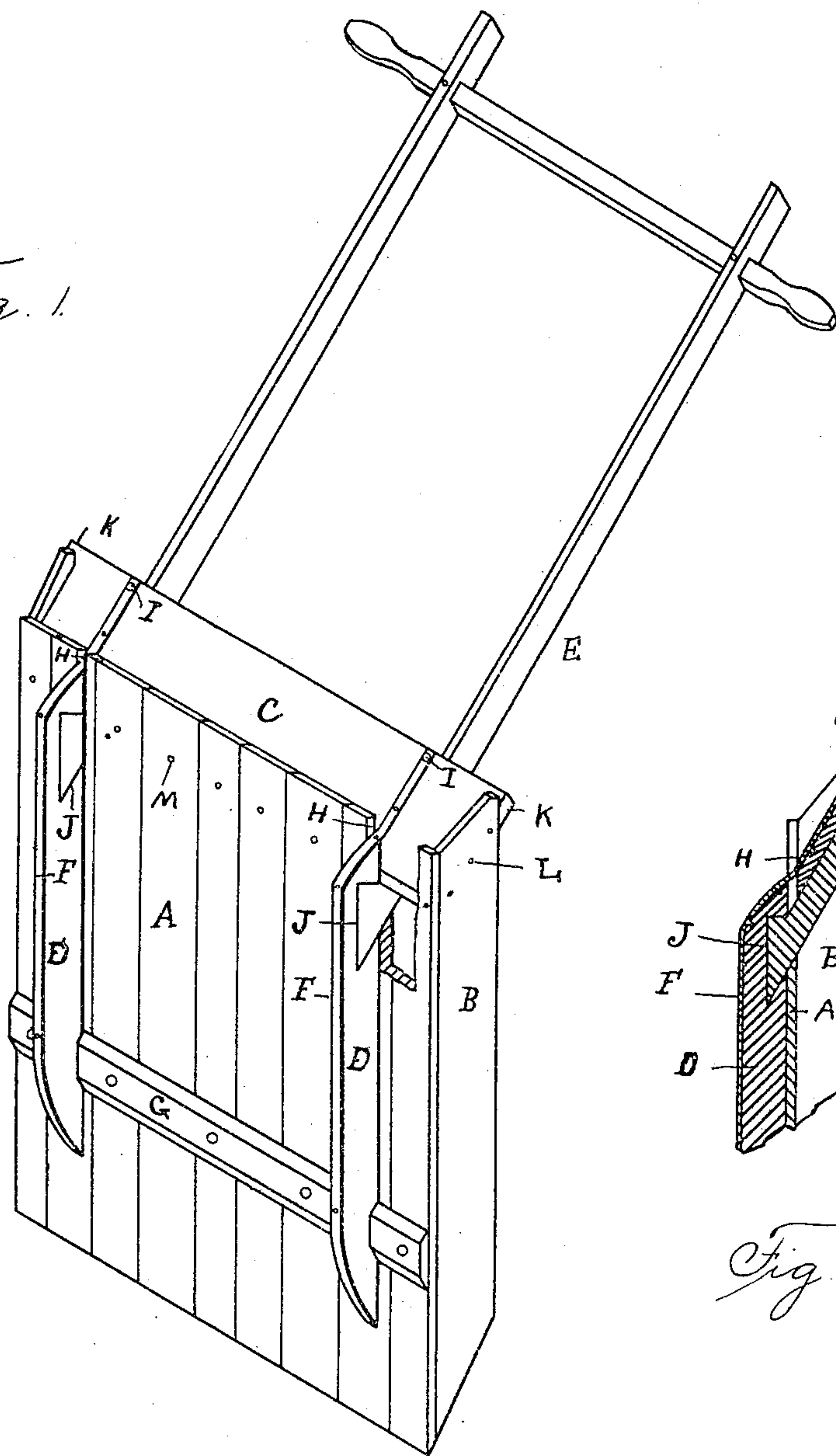
No. 787,921.

PATENTED APR. 25, 1905.

F. E. HOOPER.  
SNOW SHOVEL.

APPLICATION FILED DEC. 21, 1904.

*Fig. 1.*



*Fig. 2.*

WITNESSES:

*Marion Richards,*  
*Katherine F. Libby.*

INVENTOR

*Frank E. Hooper*  
*Clifford Verne Clifford*  
*Attorneys*

# UNITED STATES PATENT OFFICE.

FRANK E. HOOPER, OF BIDDEFORD, MAINE.

## SNOW-SHOVEL.

SPECIFICATION forming part of Letters Patent No. 787,921, dated April 25, 1905.

Application filed December 21, 1904. Serial No. 237,768.

*To all whom it may concern:*

Be it known that I, FRANK E. HOOPER, a citizen of the United States, residing at Biddeford, in the county of York and State of Maine, have invented new and useful Improvements in Snow-Shovels, of which the following is a specification.

My invention relates to improvements in snow-shovels of the kind that are provided with shoes upon the bottom of the blade thereof, and more particularly to means for preventing the handles from breaking away when lifting or pushing the blade and to improved methods of attaching the handles to the blade.

In the drawings herewith accompanying and making a part of this application, Figure 1 is a perspective view of the bottom of my improved shovel, portions being broken away; and Fig. 2 is a detail longitudinal sectional view through a portion of the blade, shoe, shoe-iron, and handle, showing means of attaching the handle.

Same letters of reference refer to like parts.

In said drawings, A represents the bottom of the blade; B, the sides; C, the back; D, the shoes; E, the handle, which passes through the blade and projects into and interlocks with the shoes, and F the shoe-irons. The shoes are curved at the front and rear, terminating at the front a little beyond a cross-bar G and at the rear somewhat inside of the end of the bottom of the blade. The shoe-irons extend over the inclined rear end of the shoe, through recesses H in the bottom, against the outside of the back of the blade, and in the plane of the handles to the top of the back of the blade. They are secured to the shoes in the usual way and are provided with bolts, I passing through the upwardly-extended portion of the shoe-iron, the back of the blades, and the handle, as seen in Fig. 2.

The ends of the handles pass through the bottom of the blade and into recesses J, formed in the shoes. The recesses in the shoes are rectangular at the rear end and V-shaped at the front end, and the ends of the handles are similarly shaped and interlock with the shoes when in the recesses.

The back of the blade is preferably inclined and inserted between the sides thereof, the lower edge being beveled and resting upon the bottom slightly in front of the rear end of the bottom, so as to give a firm nailing-space. The upper edge of the back projects over the upper edge of the sides, as seen at K. It is held in place by means of nails or screws L passing through the sides of the blade and nails or screws M passing through the bottom.

The advantages of my improved snow-shovel are that it is materially strengthened at points where it is most subject to strain and breakage. It is cheaply constructed and durable.

Having thus described my invention and its use, I claim—

1. A snow-shovel having a blade composed of a bottom, sides and back, shoes on the bottom thereof, handles secured to the back of the blade, shoe-irons secured to the shoes and back of the blade and bolts passing through the shoe-irons back of the blades and handles.

2. A snow-shovel having a blade composed of a bottom, sides and a back inserted between the sides and resting on the bottom of the blade at a point slightly in front of the rear end thereof, recesses extending into the bottom of the blade to a point adjacent to said back, shoes on the bottom of the blade and shoe-irons extending over the shoes into said recesses and along the back of the blade and means for securing the shoe-irons and back of the blade and bolts passing through the irons, back of the blade and handles.

3. A snow-shovel having a blade, shoes on the bottom thereof, said shoes having recesses in the top edges thereof and handles secured to the back of the blade and having their extremities entering and interlocking in the recesses in the shoe.

In testimony whereof I have signed my name to this specification, in presence of two subscribing witnesses, this 19th day of December, 1904.

FRANK E. HOOPER.

In presence of—

FRANK B. EMERY,  
GEORGE R. ANDREWS.