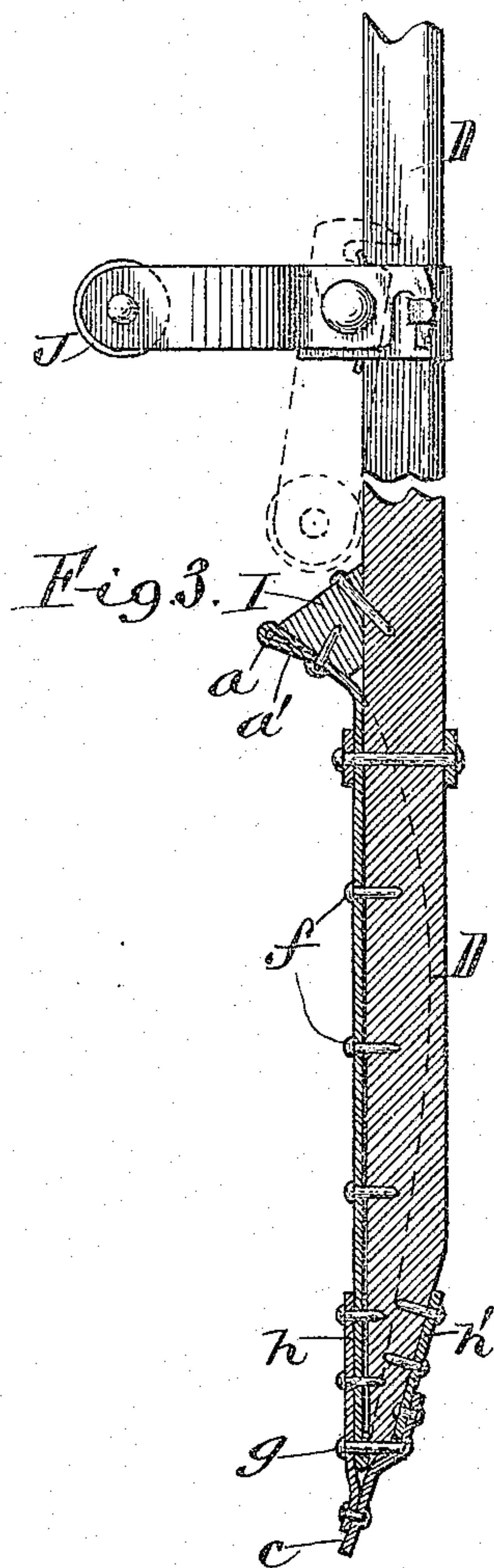
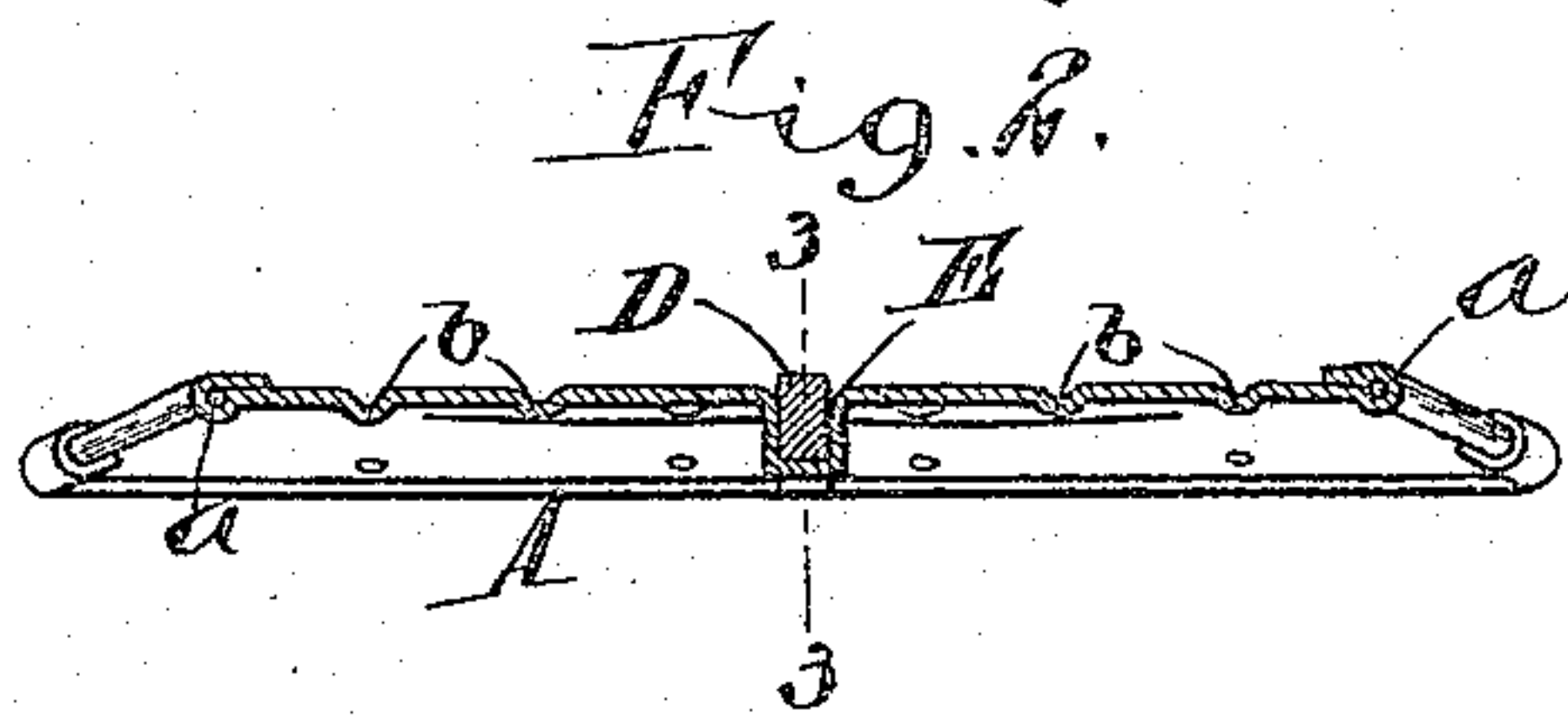
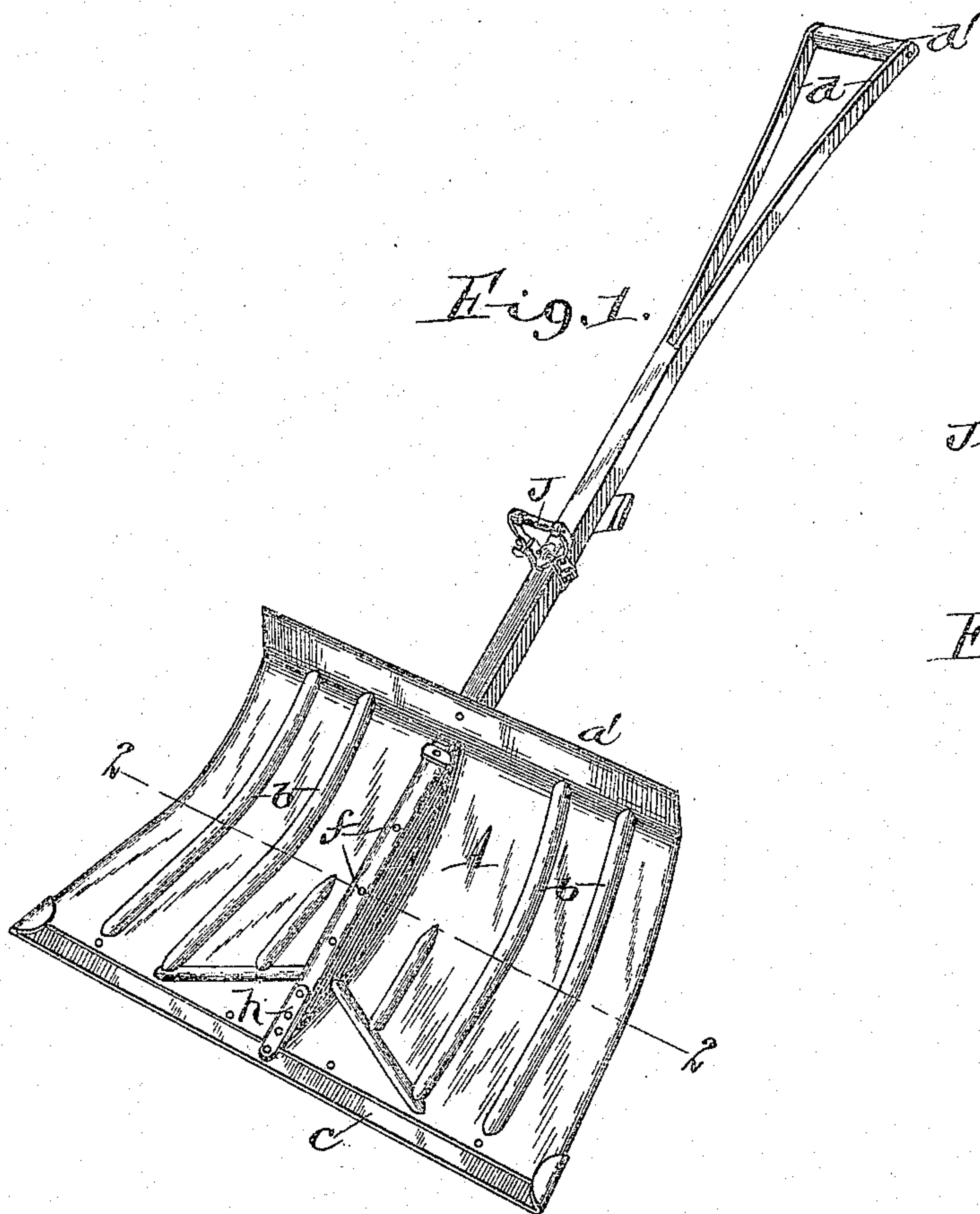


J. GIFFORD.
SNOW SHOVEL.

APPLICATION FILED JUNE 11, 1908.

930,660.

Patented Aug. 10, 1909.



Witnesses:-
Gustav W. Hora.
Richard Sommer.

Inventor
John Gifford,
Geyer & Popp
Attorneys

UNITED STATES PATENT OFFICE.

JOHN GIFFORD, OF WATERTOWN, NEW YORK.

SNOW-SHOVEL.

No. 930,660.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed June 11, 1908. Serial No. 437,830.

To all whom it may concern:

Be it known that I, JOHN GIFFORD, a citizen of the United States, residing at Watertown, in the county of Jefferson and State of New York, have invented a new and useful Improvement in Snow-Shovels, of which the following is a specification.

This invention relates to shovels, and more particularly to snow shovels of the class having a comparatively wide, concave blade of sheet metal, and a main handle secured centrally to the back of the blade and provided with an auxiliary or lift-handle which can be folded against the main handle when the shovel is not in use. Shovels of this kind are shown and described in Letters Patent of the United States Nos. 781,772 and 860,086, granted to me February 7, 1905 and July 16, 1907, respectively.

Heretofore the lower portion of the wooden handle has been bent or curved to conform to the convex back of the blade. This construction is somewhat expensive, as the handle is required to be steamed in order to bend it and the bending operation moreover tends to tear the fibers of the wood, impairing the strength of the handle.

The object of my invention is to improve the construction of the shovel so that a straight or unbent handle can be employed, thus preserving the strength of the handle.

In the accompanying drawings: Figure 1 is a perspective view of the improved shovel. Fig. 2 is a transverse section thereof in line 2—2, Fig. 1. Fig. 3 is an enlarged sectional elevation of the shovel, the plane of the sectional portion being in line 3—3, Fig. 2.

Similar letters of reference indicate corresponding parts throughout the several views.

The blade A of the snow-shovel is of the usual curved form, as shown in the drawings and in the Letters Patent hereinbefore referred to, and preferably stamped of galvanized sheet metal. Its side and top edges are preferably folded against the body thereof and over a reinforcing wire *a*, and the blade is provided with suitable reinforcing beads or ribs *b*, while at its lower edge it has the usual tip *c*.

D indicates the main handle, the upper portion of which may be split to form divergent members *d* between the upper ends of which the usual grip *d'* is secured. The upper end of the handle may however be of any other suitable construction. The handle extends to or nearly to the lower edge of the

blade and its lower portion, like its upper portion, is substantially straight or unbent and seated in a vertical groove or recess E arranged centrally in the rear portion of the blade and preferably formed by indenting the back of the blade, thus forming a raised hollow rib on the front side thereof. This hollow rib extends practically throughout the height of the blade and not only forms a recess or socket for the lower portion of the handle, but also aids in stiffening the blade. As shown, the front face of the handle is preferably flat and straight throughout the length of the handle, and the bottom or front wall of the groove E is of corresponding form. The lower end of the handle is beveled on its rear side in the customary manner to avoid forming a shoulder at the lower end of the same. The handle may be fastened to the blade by any suitable means. In the preferred construction shown, these parts are secured together by a series of nails *f* driven through the front wall of the groove E into the handle and by a rivet *g* passing through the lower pointed portion of the handle and reinforcing straps *h*, *h'* applied to the front side of the blade and the rear side of the handle. The usual brace block I is preferably secured between the front side of the handle and the flange or shoulder *a'* at the top of the blade.

It will be noted that the lower portion of the handle is practically embedded in the blade and does not project beyond the back of the same to an objectionable extent, thus producing a neat and compact construction. As this construction permits the use of a handle which is straight or unbent throughout its length, and particularly in that portion of the handle to which the blade is secured, the original strength of the timber is preserved and the expense incident to bending a curved handle is obviated, thus materially reducing the cost of the shovel. The groove or seat which receives the handle can be stamped in the blade simultaneously with the stiffening beads *b* and the operation of forming the groove does not therefore increase the manufacturing cost of the shovel. J indicates an adjustable lift handle of any suitable construction, which may be applied to the main handle D, if desired.

I claim as my invention:

1. A shovel comprising a blade curved from its upper to its lower edge and provided in its back with a straight groove, and a

handle having a straight portion seated in said groove, substantially as set forth.

2. A shovel comprising a blade provided in its back with a vertical indentation forming a raised hollow rib on its front side and extending substantially from the top to the lower edge of the blade, and a straight handle seated and secured in said indentation, the blade being curved lengthwise of the handle

and the front wall of said indentation being straight to conform to the front side of the handle, substantially as set forth.

Witness my hand this 8th day of June, 1908.

JOHN GIFFORD.

Witnesses:

C. F. GEYER,
E. M. GRAHAM.