

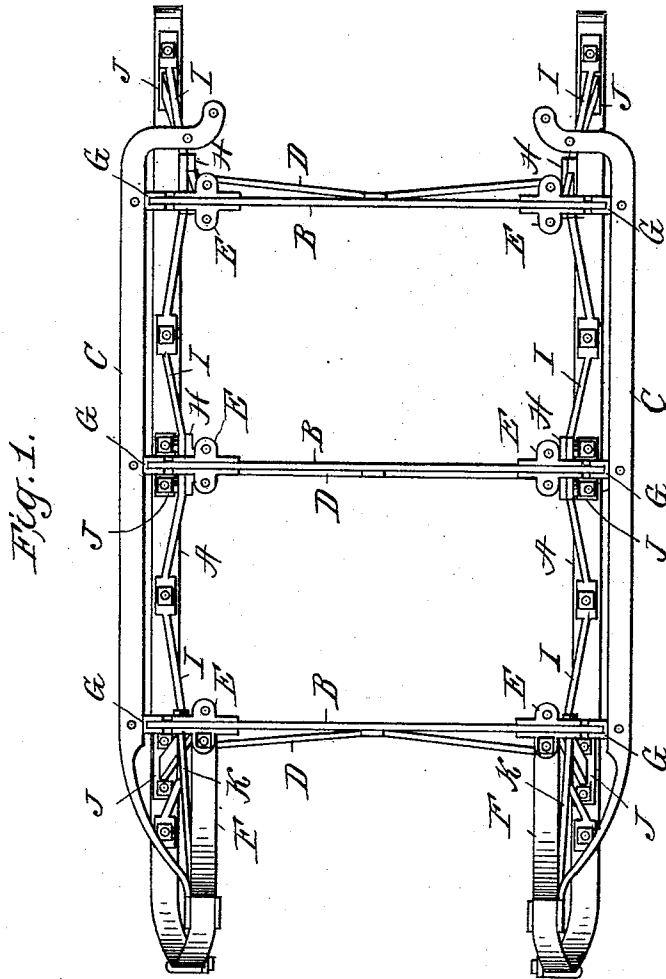
(No Model.)

2 Sheets—Sheet 1.

H. UMPHREY & J. WEEKES.
SLEIGH.

No. 487,501.

Patented Dec. 6, 1892.



Witnesses:
Marr M. Decker
Max Sumner

Inventors:
H. Humphrey and
J. Weekes
By J. W. Barker
Attorney.

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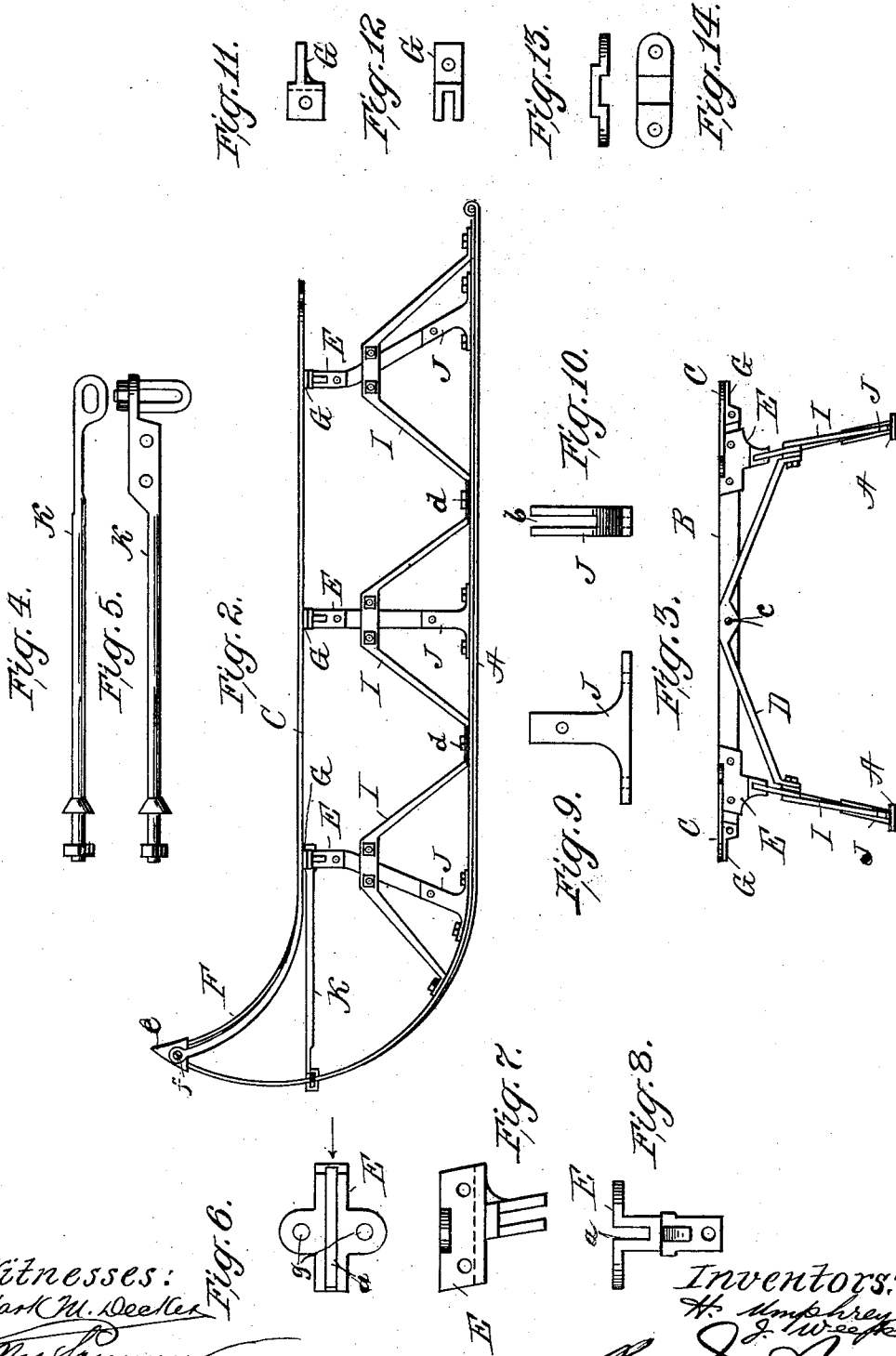
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Witnesses:
 Mark M. Decker
 Max [Signature]

Inventors:
 H. Humphrey and
 J. Weekes,
 By J. D. Burken
 Attorney.

UNITED STATES PATENT OFFICE.

HENRY UMPHREY AND JAMES WEEKES, OF CARLETON PLACE, CANADA.

SLEIGH.

SPECIFICATION forming part of Letters Patent No. 487,501, dated December 6, 1892.

Application filed July 11, 1892. Serial No. 439,619. (No model.)

To all whom it may concern:

Be it known that we, HENRY UMPHREY and JAMES WEEKES, subjects of the Queen of Great Britain, residing at Carleton Place, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Sleights, of which the following is a full, clear, and exact specification.

Our invention comprises improvements in the general construction of running-gear for sleighs, which may be made up of wood and metal or entirely of metal; and it consists principally in the arrangement and combination of parts, which will be more fully set forth in the following description, and pointed out in the claim.

Referring to the accompanying drawings, in which similar letters of reference indicate like parts in the several figures, Figure 1 is a plan view of our improved sleigh. Fig. 2 is a side elevation thereof. Fig. 3 is a view showing the construction of our sleigh. Fig. 4 is a side elevation of the bar to which the cross-bar for receiving the pole or shafts is attached. Fig. 5 is a plan view of the same, showing the arrangement for clamping the rod to the curved portion of the runner. Fig. 6 is a detail plan view of the connecting-piece for forming the jointure between the leg and the connecting-bar of the bench. Fig. 7 is a side elevation of the same. Fig. 8 is an edge view of the same, showing clearly the groove or slot into which the connecting-bar rests. Fig. 9 is a side elevation of the foot used in connecting the leg with the runner. Fig. 10 is an edge view of the same, showing the grooves or slot in which the leg rests. Fig. 11 is a side elevation of the connection employed for connecting the stays to the ends of the connecting-bars of the different benches. Fig. 12 is a plan view of the same. Fig. 13 is an edge view of the clamping device employed for rigidly retaining the braces for the legs in their proper position, and Fig. 14 is an inverted plan view of the same.

In constructing our improved sleigh we first form the benches complete. This we do in the following manner: To the cross-bars B are attached at each end the connecting-pieces E, the bars B resting in the groove or slot *a*. The connecting-pieces are fastened to the said bars B in any suitable manner, preferably by bolts

passing through the holes in said connections and bars. We then attach the connections G to the ends of the bars B for supporting the stays C. After this has been accomplished the feet J, forming the connection between the legs and the runners, are secured, preferably, by bolts to the said legs, the ends of the legs resting in the slots or grooves *b*. Three sets of the benches are usually employed, and after they have been finished, as above stated, we then secure them to the runners by passing rivets or bolts (preferably the latter) through the feet J and runners A.

The braces D are secured to the cross-bars B at the center thereof by means of a bolt *c*, which passes through said braces and bars, the ends of these braces D being connected to the legs through the medium of a clamping device, which also serves to connect the side braces I to the legs. The ends of these side braces I are then secured to the runner by a bolt or rivet *d*. To the upper end or the curved portion of the runner is secured by a triangular-shaped piece a curved brace-bar F, the other end of this bar being attached to the cross-bar B of the front bench by a bolt or rivet, which passes through one of the holes *g* in the connection E. The stay or brace bar C is attached to the triangular piece *e* by a bolt *f*. This stay or bar C reaches beyond the last bench, where it forms a curve, adapting it to reach under the body of a sleigh, where it would be secured by screws or bolts. This bar is also attached, as before stated, to the ends of the cross-bars B by the connecting-pieces G, a bolt or rivet being passed through said bars and connections.

A bar *k* for supporting the cross-bars of a pole or shafts passes through the cross-bar B and connection E on the front bench and then receives a nut, which holds it firmly in position, the other end being attached to the runner by a U-shaped device passing around the runner and through said bar. A nut is then secured on the end of said bar, which holds it firmly in position.

Having thus described our improvements, what we claim is—

The running-gear for sleighs, consisting of a bar B, provided with connections E and G, legs secured to said connections E, foot connections J, secured to the lower ends of the

legs for securing the legs to the runners, a stay or bar C, secured to the upper curved ends of the runners and to the connections G for keeping the benches in proper position, 5 braces D for preventing the spreading of the runners, a curved bar F, attached to the runners by a triangular connection and secured to the connections E by means of a bolt or otherwise, and a bar k, passing through the 10 connections E and secured by a bolt, the other end of said bar being connected to the run-

ner, all substantially as and for the purposes described.

In testimony that we claim the foregoing we have hereunto set our hands this 15th day 15 of October, 1891.

HENRY UMPHREY.
JAMES WEEKES.

Witnesses:

ROBERT PATTERSON,
GEO. II. FINDLAY.