

(No Model.)

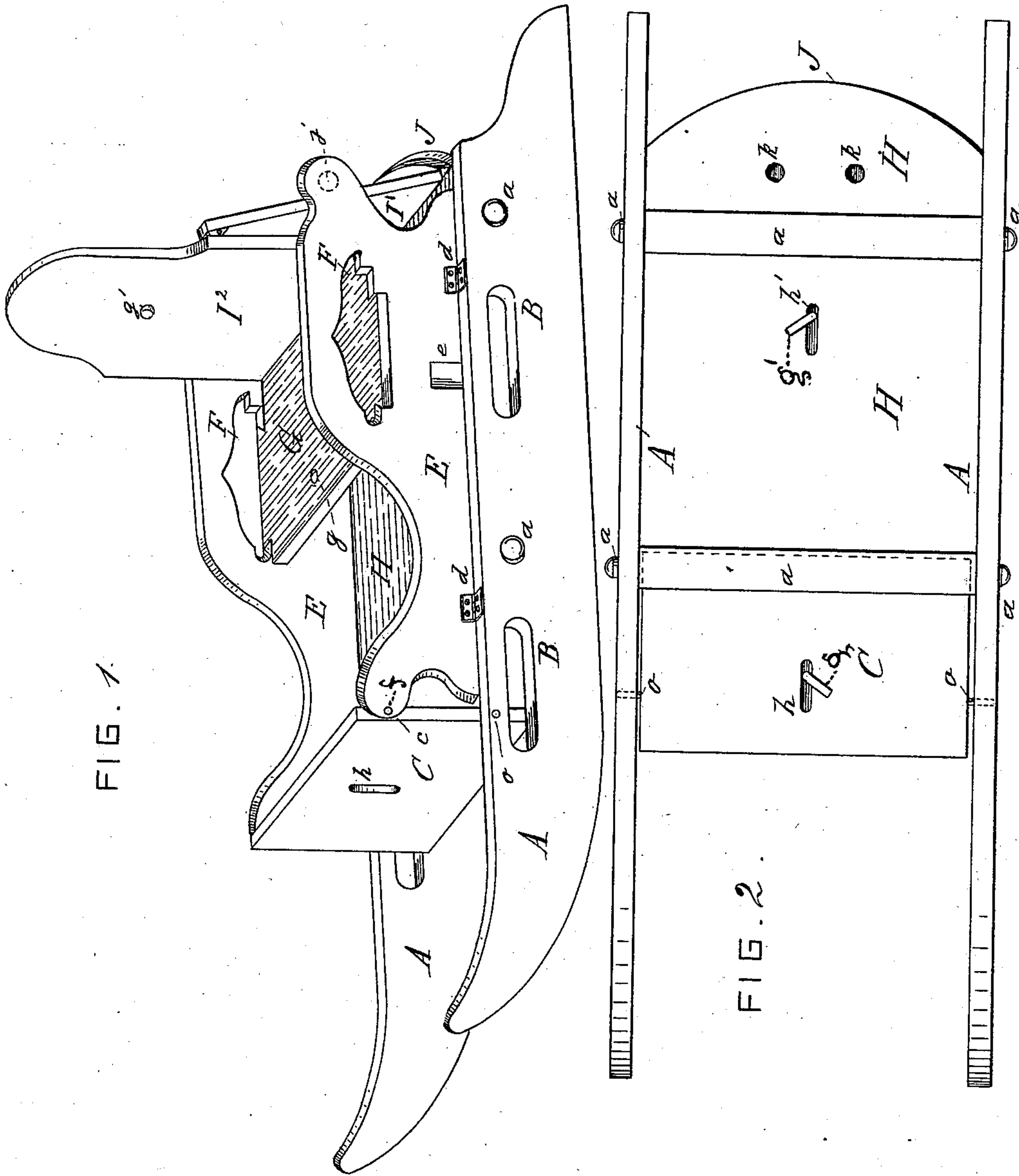
J. A. CRANDALL.

2 Sheets—Sheet 1.

SLED.

No. 376,585.

Patented Jan. 17, 1888.



WITNESSES

Wm. A. Lowe
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INVENTOR

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(No Model.)

2 Sheets—Sheet 2.

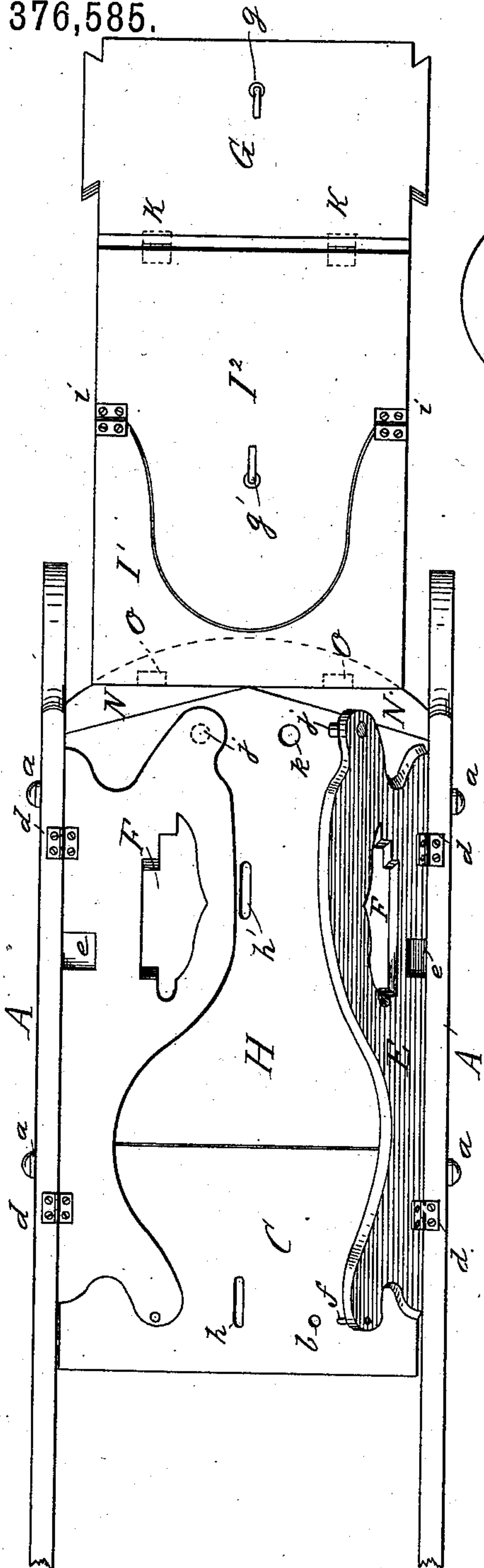
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FIG. 3



WITNESSES

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FIG. 5.

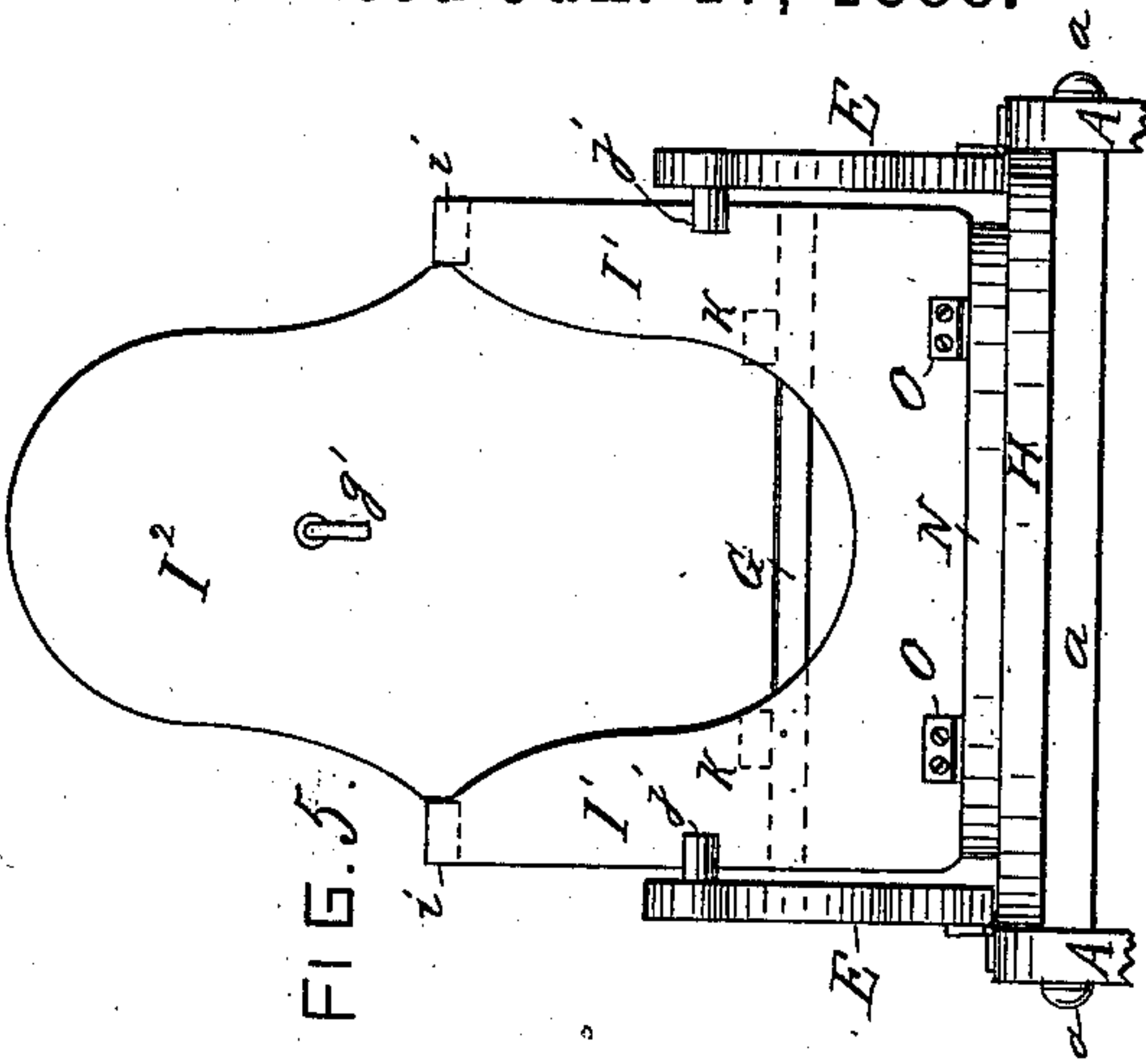
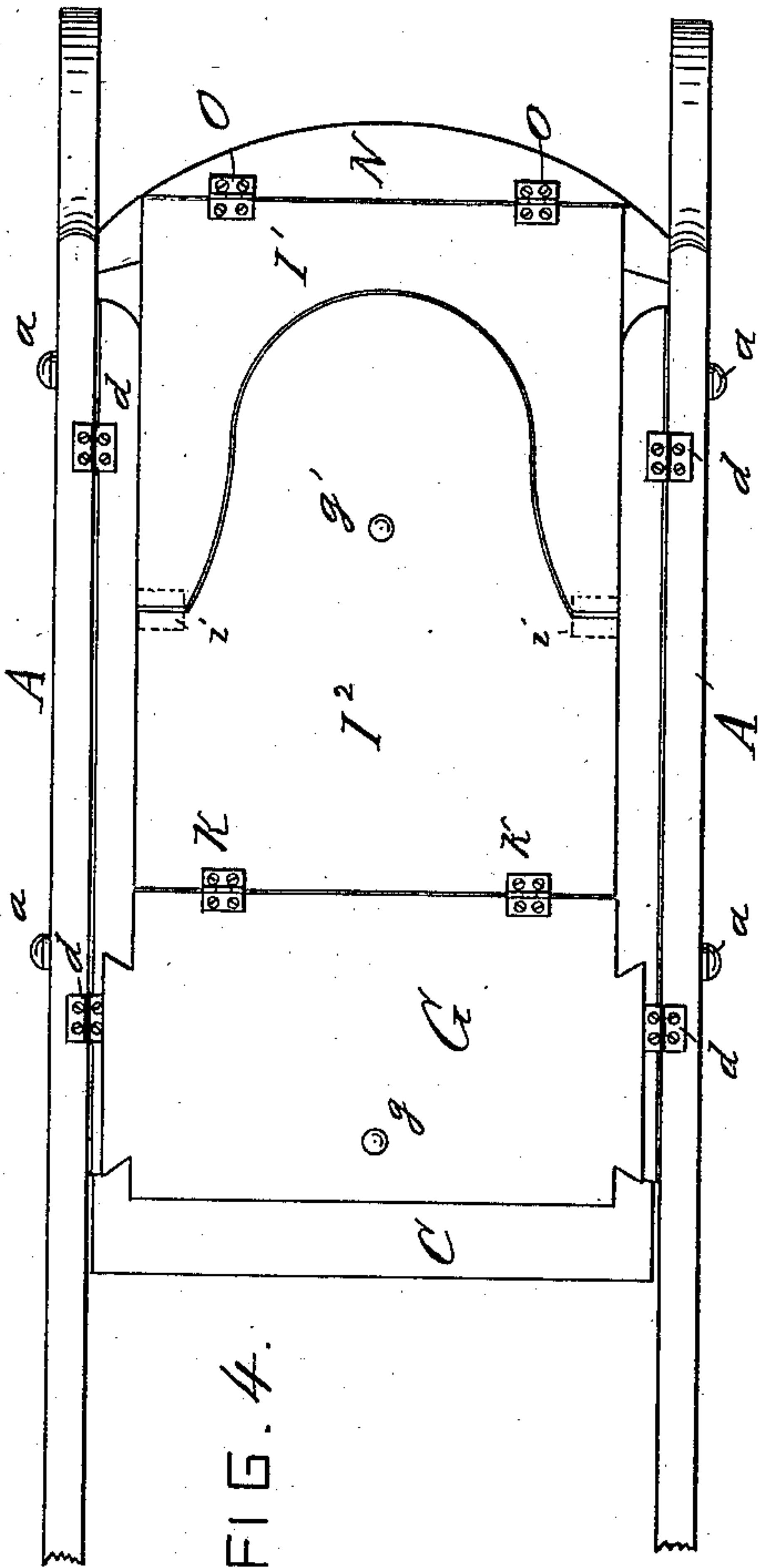


FIG. 4.



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JESSE A. CRANDALL, OF BROOKLYN, NEW YORK.

SLED.

SPECIFICATION forming part of Letters Patent No. 376,585, dated January 17, 1888.

Application filed September 26, 1885. Renewed June 23, 1887. Serial No. 242,284. (No model.)

To all whom it may concern:

Be it known that I, JESSE A. CRANDALL, a citizen of the United States, and a resident of the city of Brooklyn, in the county of Kings and State of New York, have invented a new and useful Improvement in Sleds; and I do hereby declare that the following specification, taken in connection with the drawings annexed to and forming part of the same, furnishes a full and clear description thereof sufficient to enable those skilled in the art to which it pertains to make and operate the same.

My invention relates to sleds for children's use.

The objects of my improvement are to so construct the upper surface of the sled that the latter may be used for the purposes to which said articles are ordinarily put, and by a simple and easy adjustment of the several parts the upper surface of the sled may be changed to a sleigh-body having a seat, back, sides, and foot-board, or back again to its original position and condition—i. e., a flat surface—all the parts necessary to produce such changes of form being contained in said top. I attain these objects by the construction and devices shown in the accompanying drawings, in which—

Figure 1 is a view in perspective of my improved sled, showing the several parts of its upper surface or auxiliary top placed in their proper positions and forming an upper body to the sled. Fig. 2 is a plan view of the under side of the sled-frame, showing the slots and hooks by which the several parts of the upper surface of the sled are held down firmly upon the sled-frame when said parts are not in use as a sled-body. Fig. 3 is a plan view of the upper surface of the sled, showing the several parts thereof partially unfolded. Fig. 4 is a plan view of the upper surface of the sled, showing the several parts thereof folded in upon the sled-frame. Fig. 5 is a rear view in elevation of the back of the sled-body in position, showing the manner of attachment of the same to the sled and the supporting device for said back.

Referring to the drawings, A A are the runners of the sled.

a a are wooden rods or braces, which con-

nect the runners and hold them firmly in place parallel with each other.

B B are openings in the sides of the runners A A, by which the sled is clasped and raised when used for "coasting," &c.

b b are sockets in the front or upper surface of the foot-board C, for receiving the dowels f f in the forward extremities of the sides E E when said sides and foot-board are in a horizontal position.

C is the foot-board, which is pivoted to the sides E E by the pivots o o.

c c are sockets in the ends of the foot-board C, near the upper edge thereof, to receive the dowels f f of the sides E E when said sides and foot-board are in an upright position.

d d are hinges, which hold the sides E E to the runners A A.

E E are the sides of the sled-body, and are secured to the runners A A by the hinges d d.

e e are sockets in the sides E E, which receive the hinges i i when the parts which are connected by said hinges are laid upon said sides E E.

F F are openings in the sides E E to receive the ends of the seat G.

f f are dowels in the forward extremities of the sides E E, which fit into the sockets c c in the ends of the foot-board C when said sides and foot-board are in an upright position and into the sockets b b of the foot-board C when said foot-board and sides are in a horizontal position.

G is the seat of the sled-body, the ends of which rest in and are held by the openings F F in the sides E E when said seat G is in position, and which is attached to its back I² by the hinges K K.

g is a hook in the seat G, and g' is a hook in the back I² of the sled-body.

H is the floor of the sled-body.

h is a slot in the foot-board C to receive the hook g, and h' is a slot in the floor H to receive the hook g' when the seat G and the support I' and back I² of the seat G (when the sled-body is in position) are folded in and laid flat upon the sides E E, as in Fig. 4.

I' is the support to the back of the seat of the sled-body and is secured to the cleat N by the hinges O O.

I² is the back of the seat of the sled-body, which is attached to the support I' by the hinges *i i* and to the seat G by the hinges K K. *i i* are hinges which connect the support I' with the back I².

J is the rear end of the floor H.

j j are pins in the rear extremities of the sides E E, which fit into the sockets *k k* in the floor H when said sides are folded inward and laid flat upon said floor H, and which also hold in place the support I' when in position, as shown in Figs. 1 and 5.

K K are hinges which connect the seat G with the back I².

k k are sockets in the floor H which receive the pins *j j* in the sides E E when said sides are folded inward and laid flat upon said floor H.

N is a cleat which is secured to the surface of the floor H, at the rear thereof, and to which the support I' is attached by the hinges O O.

O O are hinges which connect the support I' to the cleat N.

o o are pivots in the runners A, upon which the foot-board C partially revolves.

Similar letters refer to similar parts in the several views.

I construct my said invention and improvement as follows: The sled-runners A A are made of wood, in the ordinary form and of any desired thickness, and are held together in place parallel with each other by the wooden rods or braces *a a*. These braces enter the sled-runners at a point on their surface sufficiently below the upper edge of the runners, so that when the floor H and the several parts which make up the sled-body are placed thereon the upper surface of the sled shall be flush with the upper edges of the runners A A.

Upon and to these braces *a a* is placed and fastened the top or wooden floor, H, of the sled, provided with the slots *h h* and sockets *k k*, and which floor H extends from the point marked J in Figs. 1 and 2 to about the middle of the forward brace *a*, as shown in Fig. 2.

A wooden foot-board, C, of the same width as said floor is pivoted to the sled-runners A A by the pivots *o o*, and is laid flat upon the forward brace *a*, and its edge meets the front edge of the floor H. The upper surface of this foot-board C is provided with sockets *b b* and slot *h*, and in its ends and near its upper edge are sockets *c c*. At the outer edges of the floor H, I place the wooden sides E E of the sled-body, attaching them to the upper edges of the runners A A by the hinges *d d*, so that when erect said sides stand on the floor H, as shown in Figs. 1, 3, 4, and 5. In these runners A A, I cut the openings B B. The forward extremities of the sides E E, I provide with dowels *f f*, of wood or metal, and the rear extremities of the sides E E, I provide with pins *j j*, of wood or metal. In the rear upper portion of the sides E E, I cut the openings F F. Just below these openings F F, I cut sockets *e e*. At the rear of the sides E E, I place upon and secure

to the floor H a wooden cleat, N, as shown in Fig. 3. Said cleat N is of the same thickness as that of the sides E E. To this cleat N, I attach the wooden support I' by the hinges O O, and to the support I', I attach the wooden back I² by the hinges *i i* and attach the wooden cleat-seat G to the back I² by the hinges K K.

The seat G, I provide with a hook, *g*, as shown in Figs. 1, 2, 3, and 4, and provide the back I² with the hook *g'*, as shown in Figs. 1, 2, 3, 4, and 5. The ends of the seat G are cut and shaped to fit snugly into the lower part of the openings F F in the sides E E.

The runners being in place, held together by their braces, the floor being fastened upon said braces, and the sides being attached to the runners, the foot-board being pivoted to the runners, and said sides and foot-board being folded in upon the floor of the sled, and the seat, back, and support being attached together, the latter to the cleat, and said seat, back, and support being folded in upon the said floor, the top of the sled presents the appearance shown in Fig. 4, and the under surface appears as shown in Fig. 2.

The operation of erecting the sled-body is conducted as follows: The hooks *g* and *g'*, Fig. 2, are turned into their respective slots *h* and *h'*, and the seat G is raised and with it the support I' and back I², and they are together extended outwardly to the right at full length, as shown in Fig. 3. The sides E E and foot-board C are raised to an upright position, Figs. 1, 3, and 5. The seat G is then raised and carried to the left, the portion of the back I² nearest the support I', partially revolving on the hinges *i i*, the support I² rising at the same time. The seat G is carried to the left above the floor H, and between the rear extremities of the sides E E is bent on its hinges K K, and its ends are inserted in the openings F F. The support I' now extends downward, its lower end being attached to the hinges O O upon the cleat N at the rear of the floor H, and is itself also held in place there and supported by the pins *k k*, Figs. 1 and 5. The dowels *f f*, at the forward extremities of the sides E E, are inserted in sockets *c c* in the edges of the foot-board C, (said foot-board C having been previously raised to an upright position,) and the sled-body is then in the position shown in Fig. 1, and its back is in the position shown in Fig. 5.

The sled-body is restored to its original position, as shown in Fig. 4, by the following operation: The sides E E are drawn outwardly over the edges of the runners A A, thus releasing the dowels *f f* and the pins *j j*; the foot-board C is dropped into place to meet the edge of the floor H; the ends of the seat G are released from the openings F F; the seat G is then raised, revolving upon its hinges K K; the back I² revolves upon its hinges *i i*, and the seat, back, and support are together extended outwardly to the right, as shown in Fig. 3. The sides E E are then turned in-

ward upon the floor H and foot-board C. The
 dowels *ff* fit into the sockets *bb* in the foot-
 board C, and the pins *jj* fit into the sockets
kk in the floor H. The seat, back, and sup-
 5 port are then raised, and, revolving on the
 hinges O O, are together extended to the left
 and laid upon the sides E E, as shown in Fig.
 4, the hooks *g* and *g'* passing through the slots
h and *h'* and being turned therein, as shown
 10 in Fig. 2. The several parts of the sled-body
 are thus laid compactly upon the sled, and are
 held firmly in place thereon by the hooks *g*
 and *g'*, and the sled presents the appearance
 shown in Fig. 4.

15 All the parts of my improvement being con-
 structed of light strong wood, the sled as thus
 appointed is but a trifle heavier than those or-
 dinarily in use.

My improvement has the advantages of be-
 20 ing capable of easy adjustment and operation,
 and of being also readily applied to the ordi-
 nary sled. It combines a sled for coasting
 and a sleigh for riding purposes in one and
 the same article. It is as safe, strong, and
 25 durable when properly arranged and oper-
 ated as are sleds having a rigid permanent
 top or body thereon.

The construction and arrangement of the
 several parts of my improvement and their
 30 connection with each other admit of said parts
 being readily and compactly folded upon the
 top of the sled, giving to the latter a neat and
 comparatively smooth surface.

Having thus particularly described my said
 35 invention and improvement, its construction,
 manner of operation, and advantages, what I
 claim as new, and desire to secure by Letters
 Patent, is—

1. In a sled, the combination of a foot-board
 40 pivoted to the runners of the sled, hinged

sides provided at their forward extremities
 with dowels and at their rear extremities with
 pins, a seat, back, and support for said back,
 said seat, back, and support being hinged
 upon each other, and said foot-board, sides, 45
 seat, back, and support being capable of evo-
 lution from said sled-frame and of adjustment
 into the form of a sled-body, substantially as
 shown and described.

2. In a sled, hinged folding sides provided 50
 at their forward extremities with dowels and
 at their rear extremities with pins, in combi-
 nation with a foot-board pivoted to the run-
 ners of the sled and a hinged folding seat and
 back for the same, and a support to said back, 55
 as shown and described, and for the purposes
 specified.

3. An auxiliary top to a sled, consisting of a
 floor, H, provided with a cleat, N, sockets *kk*,
 and slot *h'*, a foot-board, C, provided with 60
 pivots *oo*, sockets *cc* and *bb*, and slot *h*, fold-
 ing sides E E, provided with sockets *ee*, open-
 ings F F, dowels *ff*, pins *jj*, hinges *dd*, and
 sockets *ee*, seat G, provided with hook *g* and
 hinges K K, back I², provided with hook *g'*, 65
 and support I', provided with hinges O O, said
 back I² and support I' being connected together
 by hinges *ii*, the whole adapted to be folded in
 upon the frame of the sled and form a flat sur-
 face thereon, and also adapted to be unfolded 70
 from said sled-frame and erected into the form
 of an upper body for the sled, having a foot-
 board, sides, seat, back, and support for said
 back, all substantially as shown and described,
 and for the purposes specified.

JESSE A. CRANDALL.

Witnesses:

F. W. HANAFORD,
 ISAAC JACOBSON.