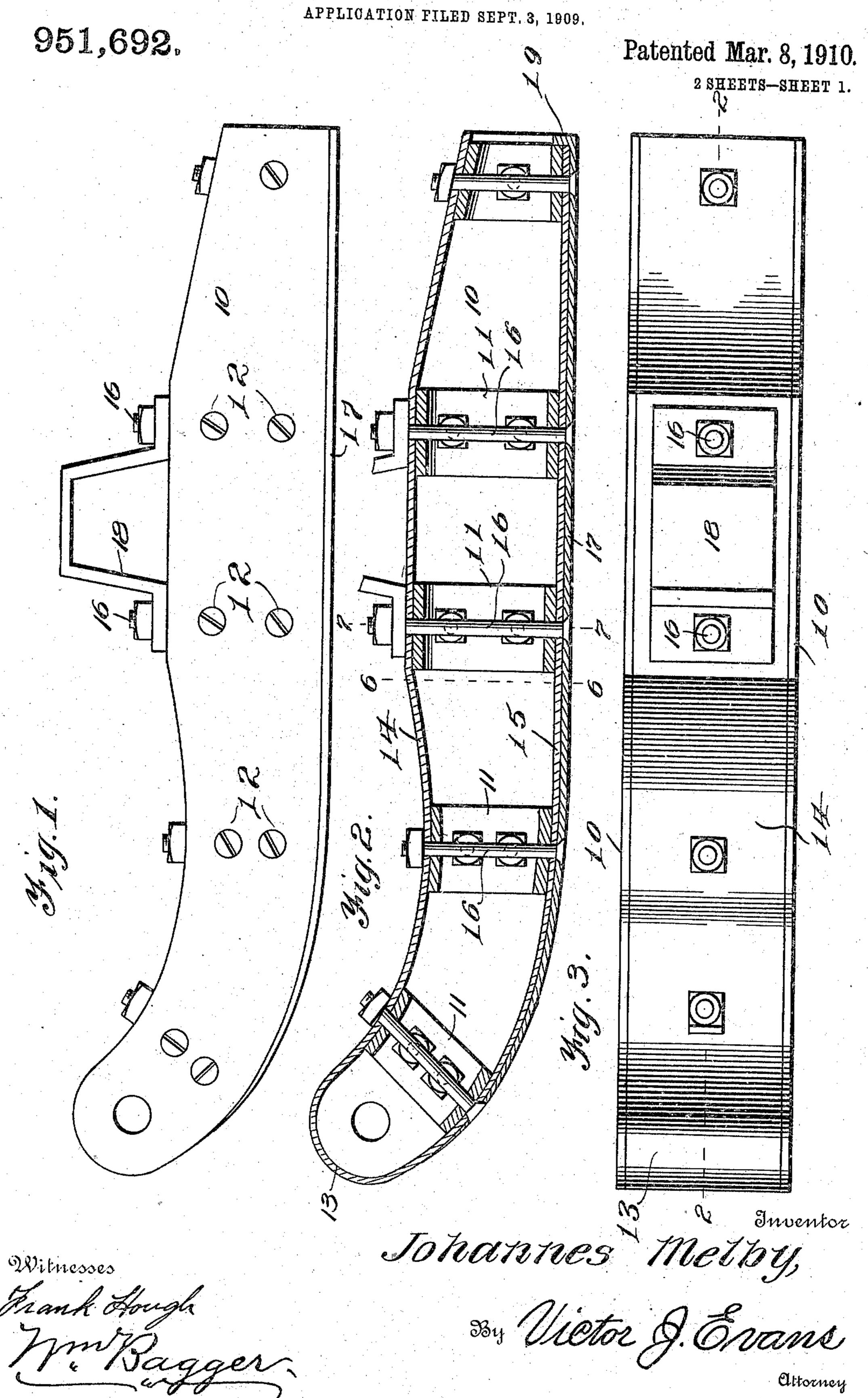
J. MELBY.

SLEIGH RUNNER.

APPLICATION FILED SEPT. 3, 1909



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Witnesses

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## UNITED STATES PATENT OFFICE,

JOHANNES MELBY, OF BACKUS, MINNESOTA.

## SLEIGH-RUNNER.

951,692.

Specification of Letters Patent. Patented Mar. 8, 1910.

Application filed September 3, 1909. Serial No. 516,004.

To all whom it may concern:

Be it known that I, JOHANNES MELBY, a citizen of the United States, residing at Backus, in the county of Cass and State of 5 Minnesota, have invented new and useful Improvements in Sleigh-Runners, of which the following is a specification.

This invention relates to sleigh runners of that class which are constructed entirely 10 of metal and it has for its object to produce a sleigh runner of this class which shall be simple in construction, inexpensive, durable

and thoroughly efficient in use.

With these and other ends in view which 15 will readily appear as the nature of the invention is better understood the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described 20 and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being however understood that no limitation is necessarily made to the 25 precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may

be resorted to when desired.

In the drawings: Figure 1 is a side eleva-30 tion of a sleigh bob or runner constructed in accordance with the invention. Fig. 2 is a longitudinal vertical sectional view of the same. Fig. 3 is a top plan view. Fig. 4 is a perspective detail view of one of 35 the side members of the casing of the improved runner. Fig. 5 is a perspective detail view of the strap or member which constitutes the top and the bottom of the casing. Fig. 6 is a vertical transverse sectional view 40 taken on the plane indicated by the line 6—6 in Fig. 2. Fig. 7 is a vertical transverse sectional view taken on the plane indicated by the line 7—7 in Fig. 2.

Corresponding parts in the several figures 45 are denoted by like characters of reference.

The casing of the improved runner is composed of side members 10—10 which may be made of any suitable shape and dimensions, substantially as outlined in Figs. 1 <sup>50</sup> and 4 of the drawings; said side members are connected together and spaced apart at suitable intervals by spacing and shaping members consisting of sleeves 11, preferably made of cast iron and provided in the 55 sides thereof with apertures for the passage of fastening members such as bolts 12 where-

by the said spacing and shaping members are connected with the side members 10 of the casing; said side members being thus securely connected together and spaced at 60 the requisite distance apart. The top and bottom of the casing are formed by a continuous strap C of wrought iron, steel or other suitable material, said strap being bent to form the nose 13 of the runner from 65 which the top and bottom members 14 and 15 extend rearwardly as shown, said top and bottom members being spaced apart by the spacing and shaping members 11 with which the strap C is firmly connected by 70 means of bolts 16 passing through the top and bottom members 15. The bolts 16 also extend through and serve to secure in position, the shoe 17 of the runner as will be most clearly seen in Figs. 2 and 7 of the 75 drawings.

The sleeves 11 which constitute the spacing and shaping members may be made of various dimensions so that the top and bottom members 14 and 15 will be thereby 80 variously spaced at various points; said sleeves may also be suitably shaped to support the variously curved and straight portions of the casing engaged thereby.

From the foregoing description taken in 85 connection with the drawings hereto annexed, the operation and advantages of this invention will be readily understood.

The construction is simple and inexpensive and the use of wood or other readily 90 breakable material which is also liable to

shrink, is entirely avoided.

A body supporting knee 18 may be supported upon the top of the runner with which it may be connected by some of the 95 bolts 16; and it is preferred to provide the shoe 17 with an upturned rear end forming a flange 19 that abuts upon the rearmost spacing member 11, thereby reinforcing the construction and preventing any possible 100 longitudinal displacement of the shoe.

Having thus described the invention, what

is claimed is—

1. In a sleigh runner, a casing comprising side members, spacing and shaping members 105 consisting of sleeves interposed between and connected with the side members, and a strap bent to form the nose of the runner and having rearward extensions connected with the spacing and shaping members and 110 constituting the top and bottom parts of the casing.

2. In a sleigh runner, a casing comprising | casing and having an upturned flange side members, a strap bent to form the nose of the runner and extending rearwardly to form top and bottom members lying between 5 the side members, and interposed spacing members with which the side, top and bottom members are connected.

3. In a sleigh runner, a plurality of spacing and shaping members consisting of 10 suitably shaped sleeves, side members bolted upon the sides of the sleeves, and top and bottom members consisting of a continuous strap having an intermediate portion forming the nose of the runner, said top and 15 bottom members being connected by bolts extending also through the spacing and shaping members.

4. In a sleigh runner, a casing comprising a plurality of spacing and shaping mem-20 bers, and side, top and bottom members secured upon said spacing members, and a shoe extending longitudinally beneath the

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abutting upon the rearmost spacing member.

5. In a sleigh runner, a casing comprising a plurality of spacing and shaping members, side members bolted upon said members, a continuous strap bent to form the nose of the runner and extended rearwardly 30 to form top and bottom members engaging the spacing members, a shoe extending longitudinally adjacent to the underface of the bottom member and having an upturned flange abutting upon the rearmost spacing 35 member, and connecting bolts extending through the spacing members, the top and bottom members and the shoe.

In testimony whereof I affix my signature

in presence of two witnesses.

JOHANNES MELBY.

Witnesses:

J. W. Bailey, F. W. ZAFFKE.