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A. J. PETERTYL.
NOSE PIECE FOR SLED RUNNERS.

APPLICATION FILED APR. 17, 1903.

NO MODEL.

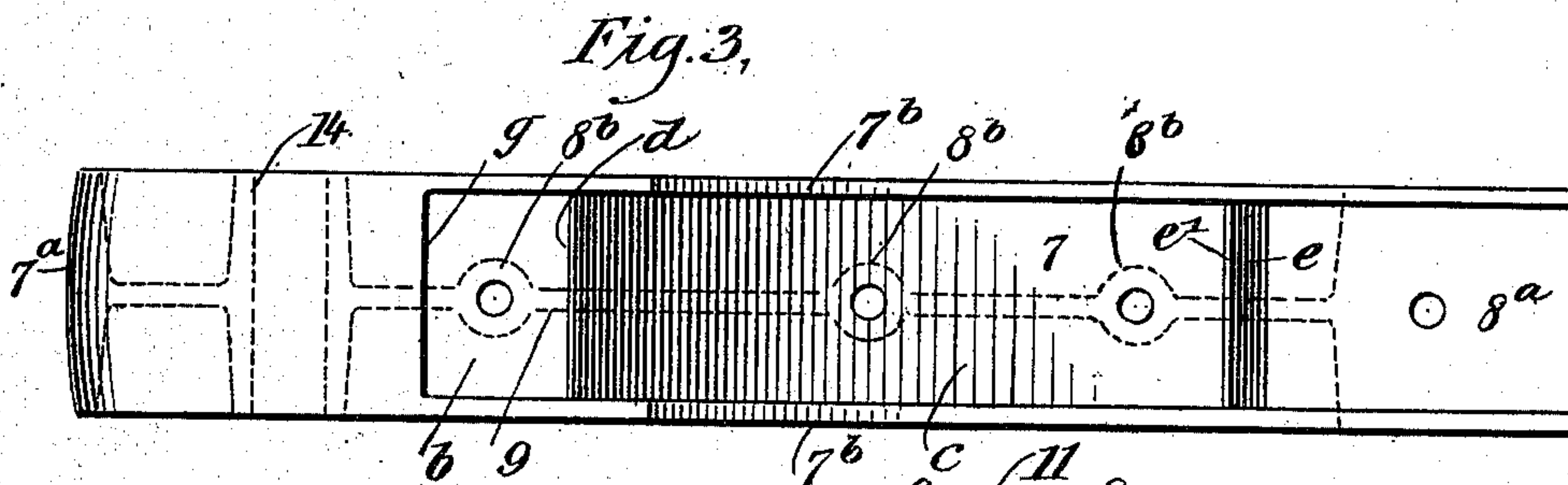
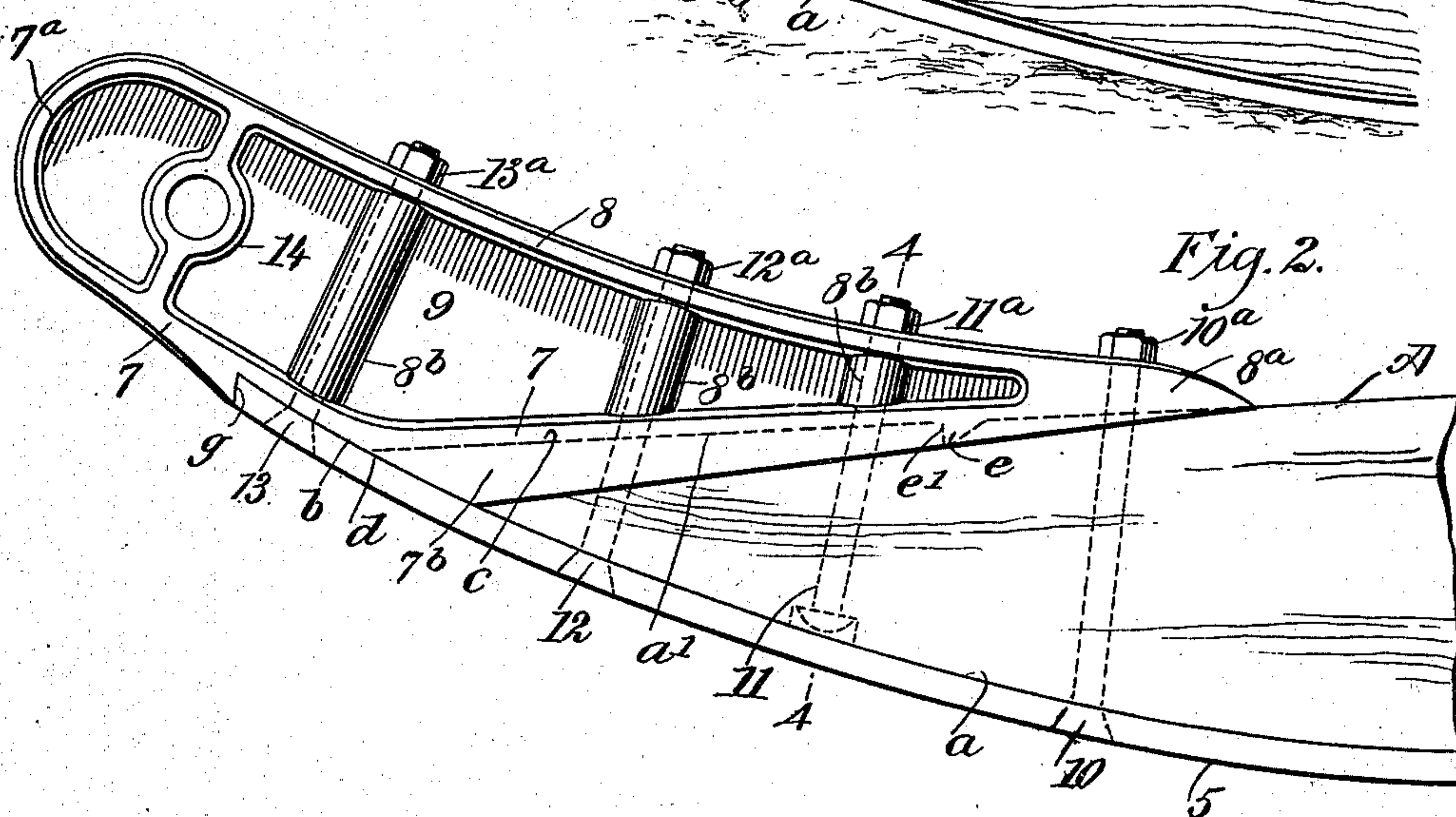
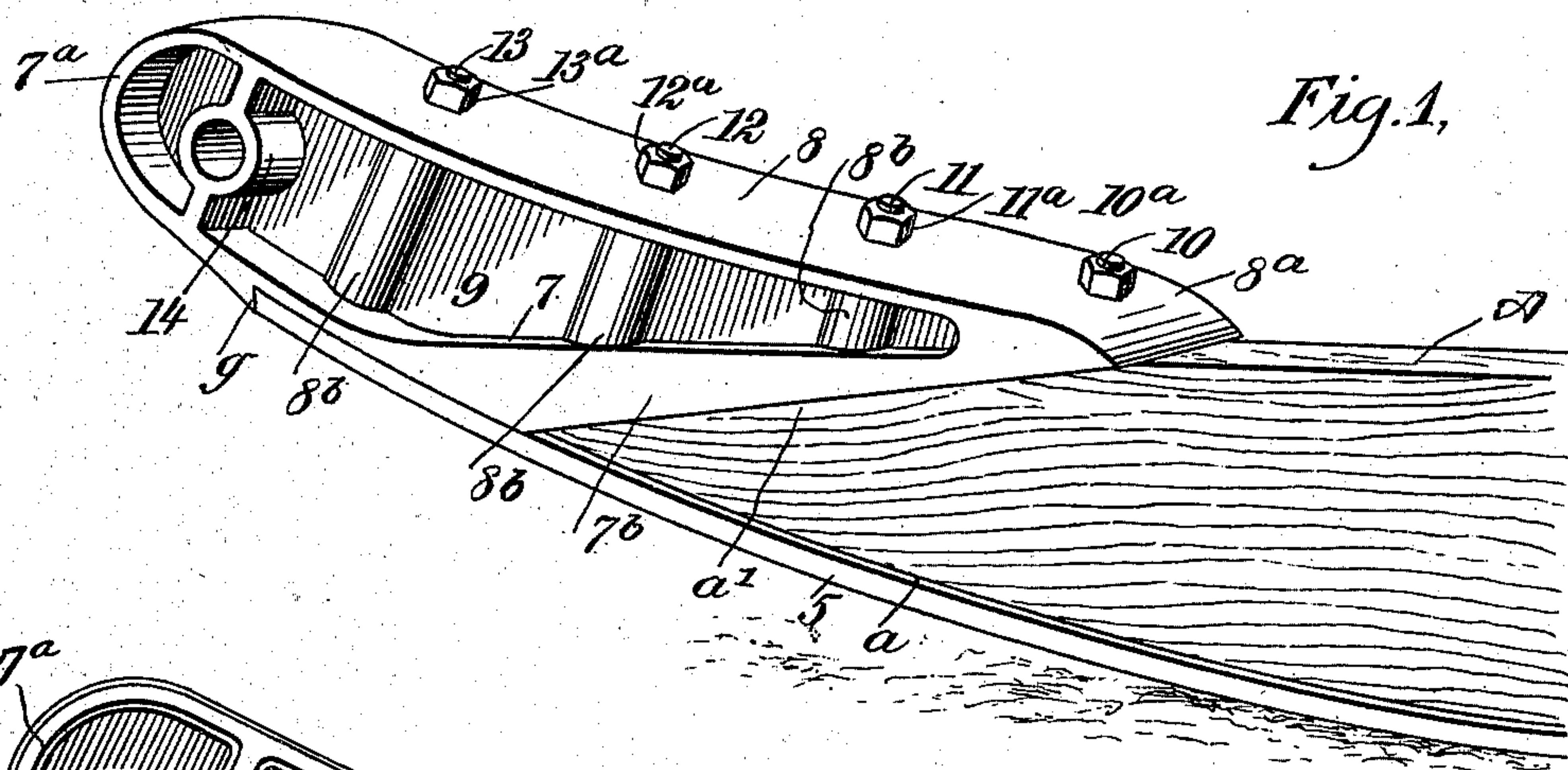
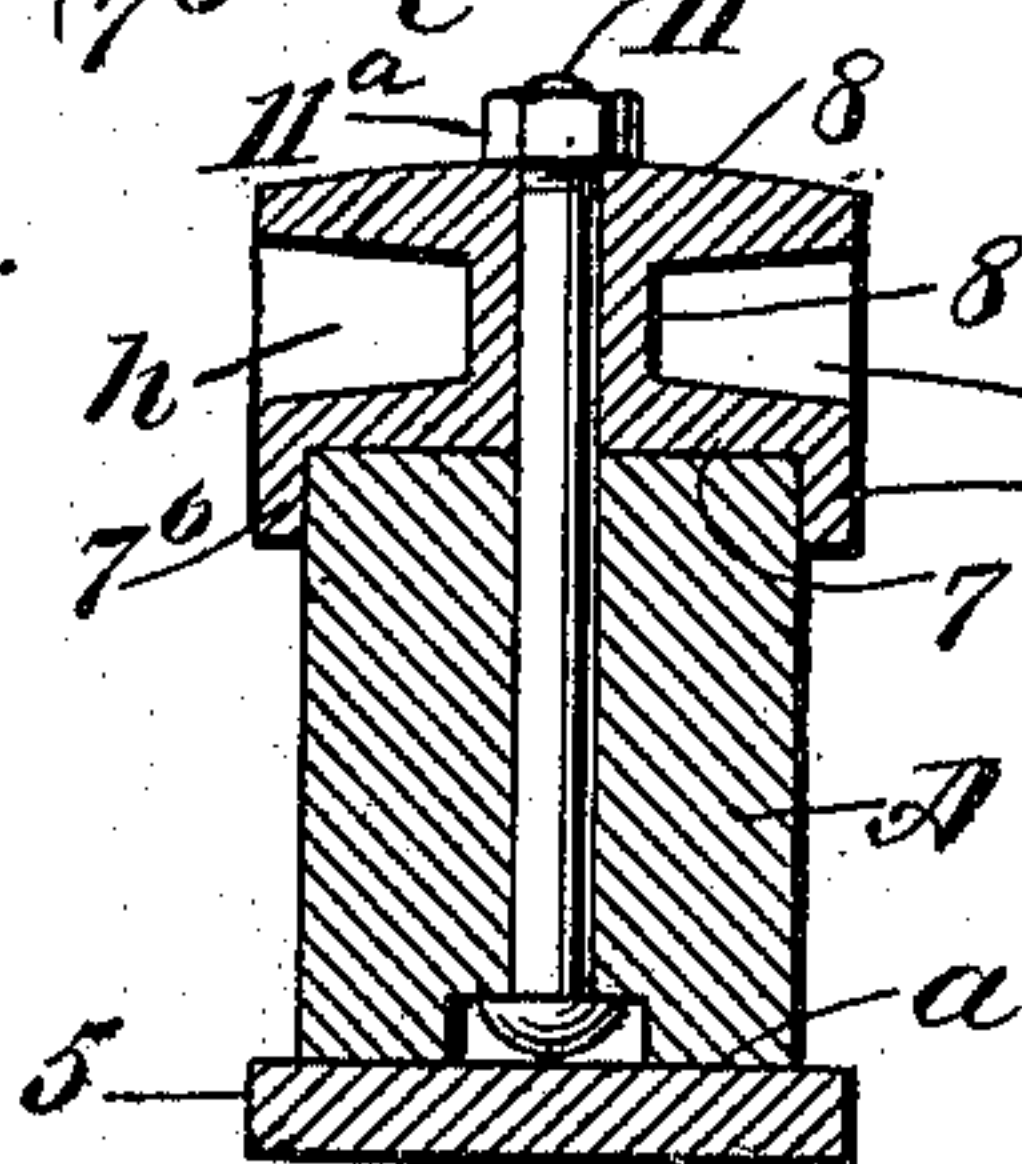


Fig. 4.



WITNESSES:

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NOSE-PIECE FOR SLED-RUNNERS.

SPECIFICATION forming part of Letters Patent No. 736,148, dated August 11, 1903.

Application filed April 17, 1903. Serial No. 153,044. (No model.)

To all whom it may concern:

Be it known that I, ANTHONY J. PETERTYL, a citizen of the United States, and a resident of Traverse City, in the county of Grand Traverse and State of Michigan, have invented a new and Improved Nose-Piece for Sled and Sleigh Runners, of which the following is a full, clear, and exact description:

This invention has for its object to provide a metal nose-piece for the front ends of sled or sleigh runners which will afford a continuation of the curvature given to the runners, greatly strengthen wooden runners at the points whereon the nose-pieces are secured by clamping the runners, afford an abutment for the forward ends of the metal soles on the runners, give a neat shapely design to the upturned front ends of the runners, and at the same time confer increased durability thereto.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of the improved nose-piece secured upon the front end of a runner. Fig. 2 is a side view of the same. Fig. 3 is a detached reverse plan view of the improved nose-piece, and Fig. 4 is a transverse sectional view substantially on the line 4 4 in Fig. 2.

In the drawings, A represents part of a wooden runner, at its front end having a convex lower surface *a*, which is so disposed as to give an upward trend thereto toward the forward extremity, as is indicated in Figs. 1 and 2. On the lower surface *a* of the runner A a similarly-curved metal shoe or sole 5 is secured by bolts in a manner which will be hereinafter fully explained. The front end of the wooden runner A is given wedge shape by suitably sloping the upper side of the runner forwardly and downwardly, as at *a'*, until it terminates and merges at its front end into the front end of the lower surface of the runner, and, as shown, the sole 5 curves upward and forward a suitable extent in advance of the front end of the runner-body.

The nose-piece for the runner A is preferably cast into form from metal and comprises, essentially, the following detail construction: A bottom plate 7 and top plate 8 are held spaced apart by an integral upright web-plate 9, and, as shown in Figs. 2 and 3, the bottom plate is angular on its exterior surface, affording two inclines *b c*, that diverge at an obtuse angle having its apex at *d*.

The inclined bottom face *c*, that extends rearward from the angle *d*, is mainly level with the exception of the hook-like projection *e*, formed transversely and positioned at a suitable point between the rear extremity of said bottom face and the angle *d*, said projection being ratchet-toothed in form and hooking forward, so as to afford a locking-shoulder *e'* thereon. From the angle *d* a portion of the forwardly-extended bottom surface *b* is rendered slightly convex, and upon this convexed surface the front portion of the sole 5 is seated, its slightly-concaved top face corresponding with the surface it engages, as is shown in Fig. 2.

The convex face *b* at its forward end terminates in the depending shoulder *g*, against which the front end of the sole 5 impinges, and forwardly from said shoulder the lower wall 7 of the nose-piece curves upward and forward until it merges into the semicircular wall 7^a, that defines the front end of the nose-piece.

The wall 7^a at its upper end is integral with the forward end of the top wall 8 of the nose-piece, and, as shown in Figs. 1 and 2, the top wall is concaved upon the upper side and extends rearward until it ends in a tapering heel-block 8^a, into which the lower wall 7 merges at the rear end thereof, said wedge-shaped heel-block equaling in thickness the width of the upper and lower walls of the nose-piece.

The lower wall 7, rearward of the shoulder *g*, is substantially equal in thickness to that of the front end wall 7^a and of the top wall 8, and as the web-plate 9 is positioned at the transverse center of the nose-piece, extending from the curved front wall 7^a to the wedge-shaped heel-block 8^a, it will be seen that an open recess *h* is formed at each side of the web-plate.

The lower wall 7 from the angle *d* to the

rear extremity of the heel-block 8^a is designed to seat upon the sloped upper surface of the runner A and be thereto secured by the bolts 10 11 12, while the sole 5 is held upon the nose-piece and the runner A by the bolts 10, 11, and 12 and a forward bolt 13. To add to the strength of the nose-piece, integral thimbles 8^b are formed at suitable points on the web-plate 9, extending between the upper and lower walls of the nose-piece at their transverse center and merging into the web-plate 9, the central bores of said thimbles receiving the bolts 11, 12, and 13. At each side of the nose-piece a flange 7^b projects downward, these parallel flanges extending from a point intermediate of the shoulder *g* and angle *d* rearward and ending at the rear extremity of the heel-block 8^a.

The depending flanges 7^b closely embrace the upper edge portion of the runner A when the nose-piece is seated thereon, and to permit the lower surface of the nose-block whereon the tooth-like projection *e* is formed to closely contact with the sloped face on the runner A a corresponding transverse groove is formed in the latter for an interlocking engagement, which will obviously prevent the slightest forward movement of the nose-piece when bolted on the runner.

The clamping-bolt 11 has its head seated in a cupped recess formed in the lower side of the runner, and the body of the bolt extends up in a perforation in the runner, so as to pass through the thimble 8^b nearest to the heel-block 8^a and is engaged at its upper end by a nut 11^a, that bears upon the upper wall 8 of the nose-piece. The clamping-bolt 10 having a coniform head is inserted through a countersunk perforation in the sole 5 and passes upward through aligned perforations in the runner A and heel-block 8^a, the projecting upper end of said bolt receiving a nut 10^a, which by proper adjustment serves to clamp the heel-block and sole together upon the runner-body. The clamping-bolts 12 and 13 in a like manner pass upward through countersunk holes in the sole 5, and the bolt 12 engages within a perforation in the runner and the thimble 8^b directly above it; but the bolt 13 holds the front of the sole 5 clamped directly upon the nose-piece near the shoulder *g*, the nuts 12^a 13^a being respectively screwed upon the projected upper ends of the bolts 12 13 to adapt them to clamp the sole on the nose-piece and upon the runner, as shown in Fig. 2.

A transverse thimble 14 is preferably formed near the front end of the nose-piece to receive one end of a spreader-rod, (not shown,) which at the other end is similarly engaged with a like thimble on another nose-piece of a parallel runner.

It will be seen that the pair of nose-pieces for the runners of a sled or sleigh serve to

protect the front ends of the runners and also by means of the depending flanges 7^b clamp the tapering front end of each runner, so as to prevent them from splitting in case the nose-pieces abut upon an obstruction.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A nose-piece for runners, comprising a casting having a bottom wall formed with an obtuse angle between its ends, a transverse locking projection on the rearward member of the angular bottom wall, adapted to engage in a transverse groove in the upper surface of the runner, a transverse abutment-shoulder on the forward member of the angular bottom wall, and means to secure the nose-piece on the runner.

2. A nose-piece for runners, comprising a metal casting recessed in each side providing a top wall, and a bottom wall, the bottom wall having obtuse angular form, the portion of said bottom wall that extends rearward from the angle of the wall seating on a forwardly and downwardly inclined surface at the front end of the runner, a ratchet-tooth projection formed transversely on the rearward portion of the angular bottom wall, an abutment-shoulder on the forward portion thereof, the ratchet-tooth projection engaging a corresponding groove in the sloped upper surface of the runner, a sole on the runner impinged at the forward end on the abutment-shoulder, and bolts and nuts adapted to clamp the runner between the sole and the nose-piece.

3. The combination with a runner convexly curved on its lower side at its forward end, and sloped forward and downward to join the lower edge at the front end, of a nose-piece for the runner, comprising a metal casting having a concaved top wall, and an obtuse angular bottom wall, a central web-plate joining said top and bottom walls, spaced thimbles formed integral with the web-plate, a shoulder on the bottom wall of the nose-piece, a projection thereon engaging a transverse groove in the upper side of the runner, a sole on the lower side of the runner and contacting at its front end with the shoulder, bolts engaging the sole, the nose-piece and the runner, said bolts passing through the thimbles, and nuts adapted to engage the upper ends of the bolts for securing the nose-piece and sole upon the runner.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANTHONY J. PETERTYL.

Witnesses:

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