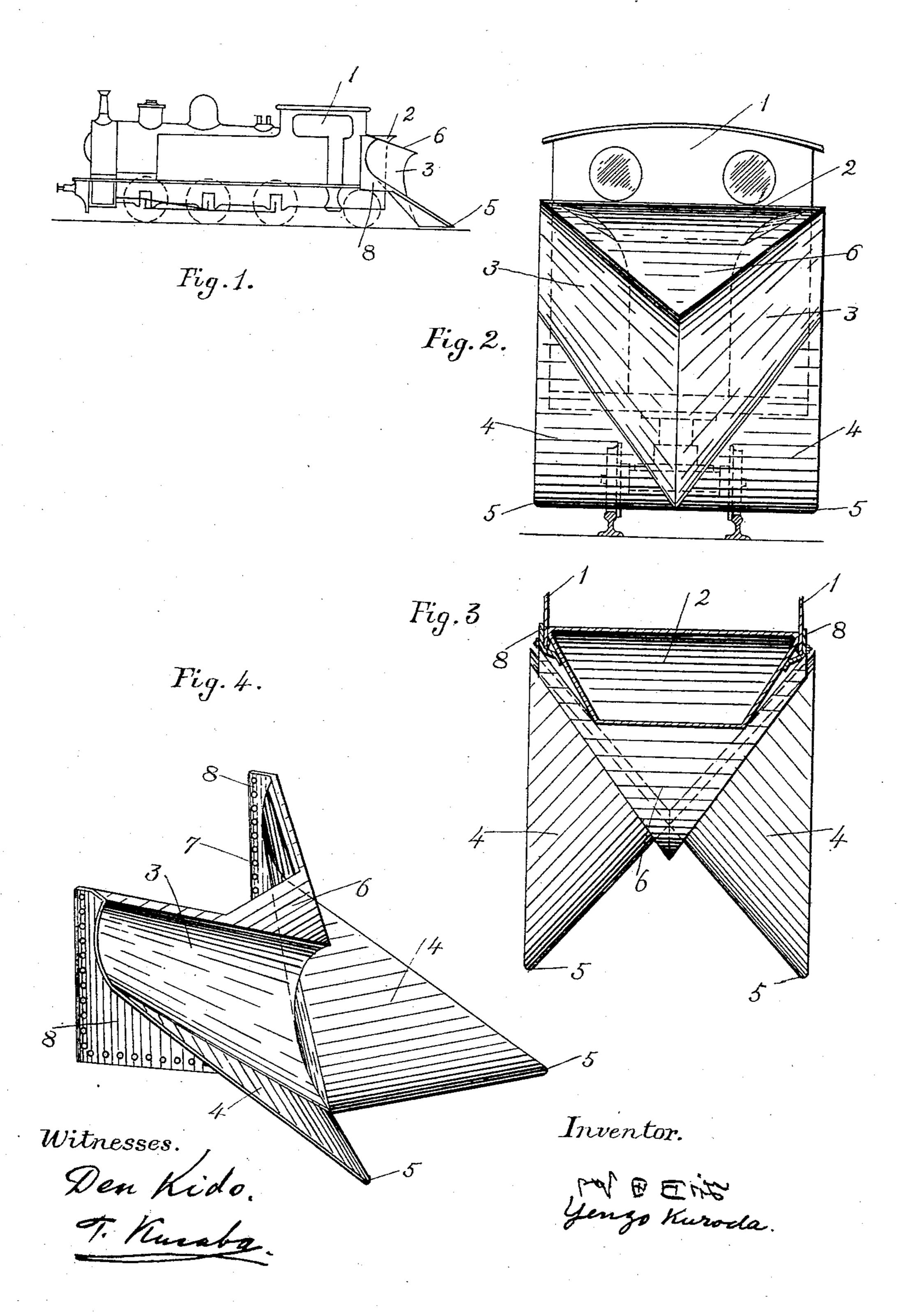
## Y. KURODA.

SNOW PLOW FOR LOCOMOTIVES.
APPLICATION FILED MAR. 7, 1908.

908,281.

Patented Dec. 29, 1908.



## UNITED STATES PATENT OFFICE.

YENZO KURODA, OF AZABU, TOKYO, JAPAN.

## SNOW-PLOW FOR LOCOMOTIVES.

No. 908,281.

Specification of Letters Patent.

Patented Dec. 29, 1908.

Application filed March 7, 1908. Serial No. 419,804.

To all whom it may concern:

Be it known that I, Yenzo Kuroda, a subject of the Emperor of Japan, residing at No. 11 Takeyacho, Azabu, Tokyo, Japan, have invented new and useful Improvements in and Relating to Snow-Plows for Locomotives, of which the following is a specification.

This invention relates to improvements in and relating to snow-plows for locomotives.

The improved snow-plow consists of the combination of a triangular blade which is formed by two snow-receiving faces with two triangular plates attached at right hand and left hand sides of the above-mentioned triangular blade, and these triangular plates incline in outward and backward directions from the front ends. Such snow-plow is to be secured rigidly to a trapezoidal coal box placed in the front of the cab of locomotive.

The objects of this invention are, first, to stiffen the construction of snow-plow by shortening the length extending from the front end of the locomotive frame; second, to secure rigidly the snow-plow to the locomotive, that is to say, to get great strength against snow; third, to throw the snow far enough away from the track.

A snow-plow ambodying this int

A snow-plow embodying this invention is shown in the accompanying drawings, in which—

Figure 1 is a side view of a locomotive attached with a snow-plow of this invention; Fig. 2 is a front view thereof; Fig. 3 is a sectional plan of the snow-plow with one part of the cab, showing the attachment of the snow-plow to the cab; Fig. 4 is a perspective view of the snow-plow.

Similar numerals refer to similar parts

40 throughout the several views.

In front of the cab 1, a coal box 2 having a trapezoidal sectional form is attached and to this coal box the snow-plow is secured rigidly, the construction of the snow-plow will be described hereinafter.

Snow-plow is formed by the combination of the snow-receiving faces 3 3 at both sides, with the triangular plates 4 4, secured to the said snow-receiving faces at their right hand and left hand sides. Each snow-receiving face has a longitudinal concave groove and both snow-receiving faces meet on the center line of the locomotive at front end and form a triangular blade as shown in the drawings. The back ends of the snow-receiving faces extend backwardly

along the upper portion of the side walls of the coal box 2 and are extended to a point near to the front end of the cab 1.

The triangular plates 44 incline upwardly 60 and spread in outward and backward directions from the lower end of the edge of the triangular blade formed by the two snow-receiving faces 3 3 and the inclined grooves are formed at both sides by the 65 intersection of the triangular plates 4 with the snow-receiving faces 3. The front ends of the triangular plates 4 are projected forwardly and are pointed as shown at 5. The under edges of the triangular plates 4, in 70 front view, are laid in a straight line approximately parallel to the upper face of the track.

The snow-receiving faces 3 3 are covered at the top by a triangular cover 6 and a gap 75 7 is formed at the back end to fit to the form of the coal box. The snow-receiving faces 3 3, the triangular plates 4 4 and the cover 6 are united together by a suitable means as such by a jointing band in the inside 80 and they are also secured rigidly to the side plates 8. The lower edge and the back edge of the side plate 8 are bolted to the side bar of the locomotive frame and the forward side of the cab respectively.

In operating a locomotive provided with such snow-plow the front point 5 of the triangular plate 4 enters first into the snow and the snow dipped up by the lower edges of the triangular plates 4 will be divided 90 into two parts by the triangular blade formed by the snow-receiving faces 3 3 and then the two parts of the snow sliding upwardly and at the same time parting from each other by degrees along the inclined 95 grooves formed by the intersection of the triangular plates 4 and the snow-receiving faces 3, will be thrown away from the top of the said grooves.

In this invention, the length of the snow- 100 plow projected from the front end of the locomotive frame can be shortened to minimum, hence great stiffness can be obtained. As the snow-plow is fitted to a trapezoidal coal box and is also secured rigidly to the 105 locomotive frame, great strength must be obtained. As the triangular plates 4 4 incline upwardly and extend in outward and backward directions the snow will be thrown far enough away from the track.

Claim:—

A snow-plow having a triangular blade

formed by two snow-receiving faces, two | to the locomotive frame, as substantially detriangular plates secured to the said snow-receiving faces, grooves inclined upwardly and extended in outward and backward direc-5 tions, points at the front ends of the said triangular plates to enter first into the snow and the whole snow-plow is fitted to a trapezoidal coal box and is secured rigidly

scribed.

YENZO KURODA.

Witnesses:

DEN KIDO, Y. FUKUKITA, T. Kusaba.