

H. J. SCHWEITZER.

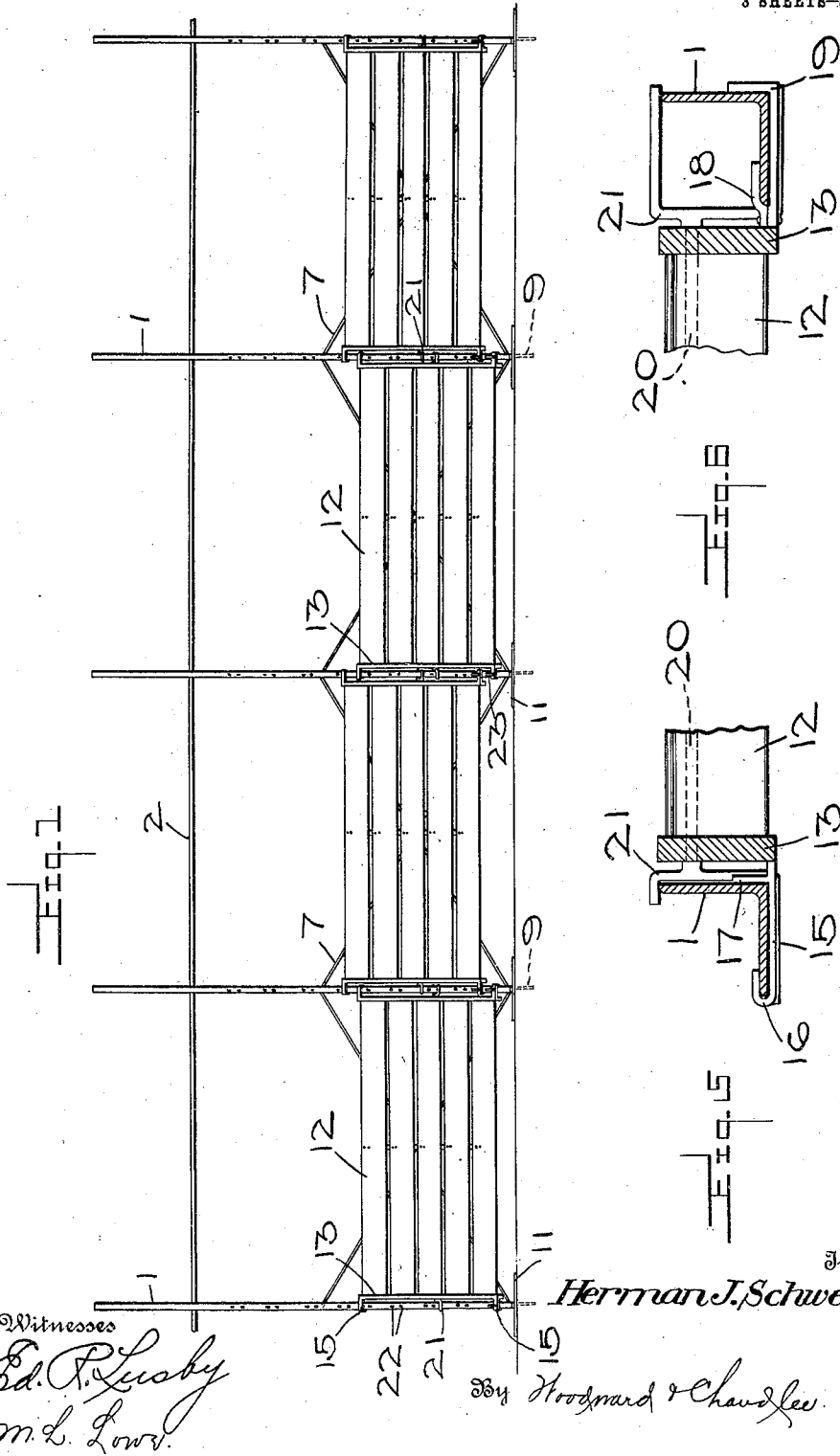
SNOW FENCE.

APPLICATION FILED JAN. 20, 1910.

979,036.

Patented Dec. 20, 1910.

3 SHEETS—SHEET 1.



Witnesses

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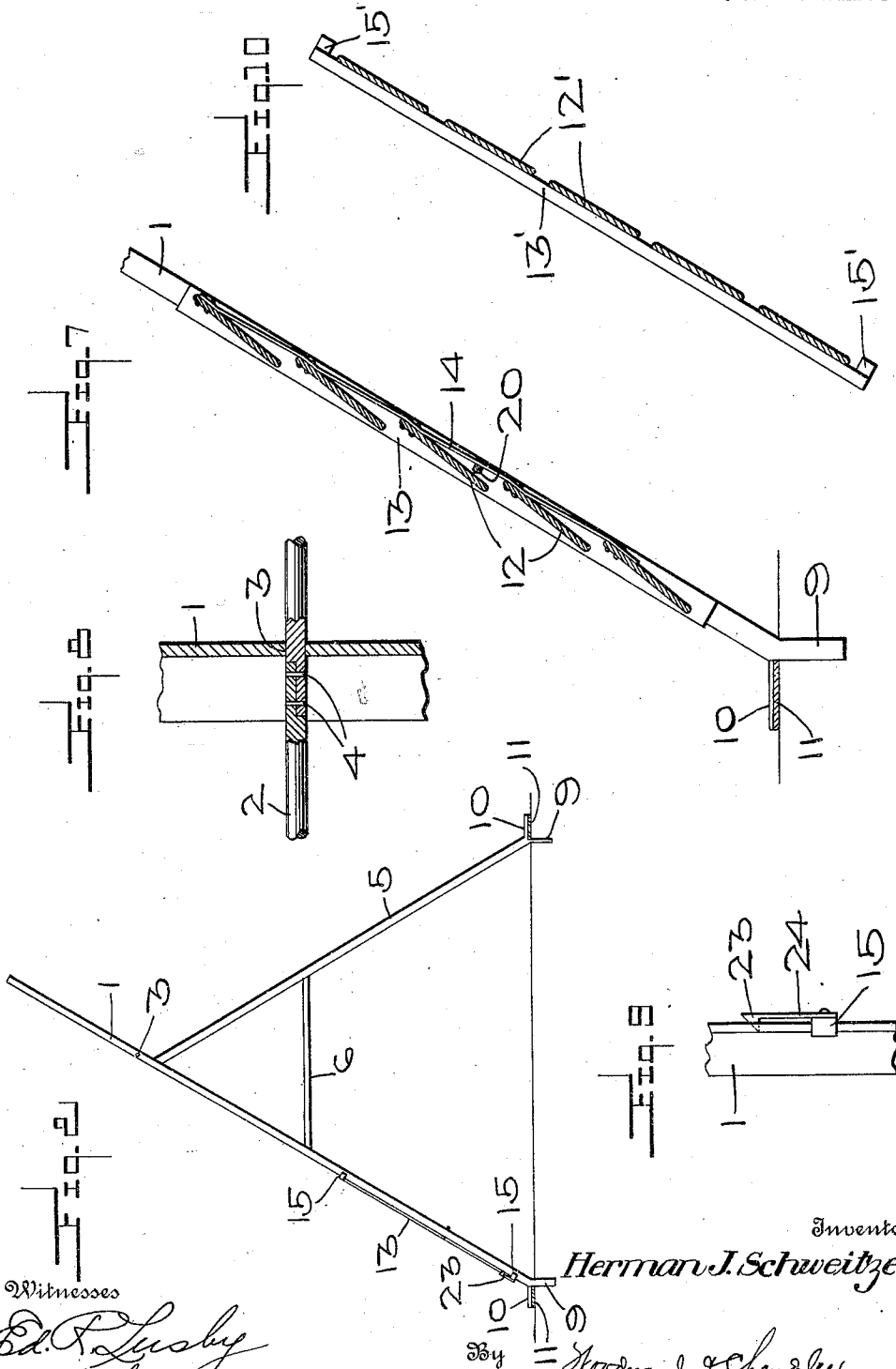
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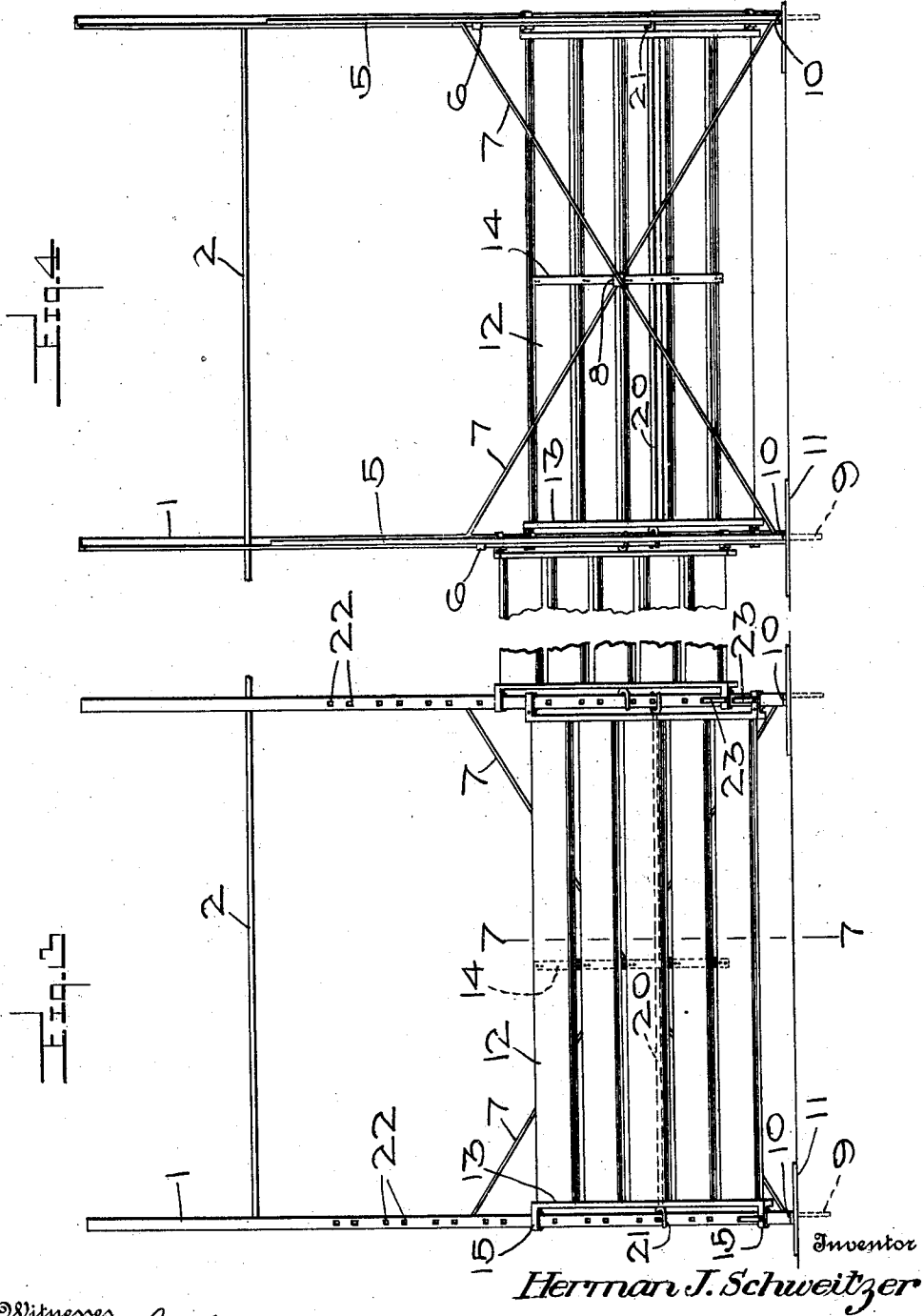
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3 SHEETS—SHEET 3.



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UNITED STATES PATENT OFFICE.

HERMAN J. SCHWEITZER, OF PUTNEY, SOUTH DAKOTA.

SNOW-FENCE.

979,036.

Specification of Letters Patent. Patented Dec. 20, 1910.

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To all whom it may concern:

Be it known that I, HERMAN J. SCHWEITZER, a citizen of the United States, residing at Putney, in the county of Brown and State of South Dakota, have invented certain new and useful Improvements in Snow-Fences, of which the following is a specification.

This invention relates to certain new and useful improvements in snow fences.

Railroads which operate in climates where heavy driving snow storms are prevalent during the winter months are compelled to erect fences on the sides of cuts to prevent the snow from drifting onto the tracks. An ordinary tight board fence is unsuited for this purpose as it receives the entire force of the wind and is very liable to be overturned.

The object of this invention is to provide a fence which will be strong, inexpensive of construction and will serve to efficiently prevent the snow from drifting into the cut on the side of which it is to be placed.

A further object of this invention is to provide a fence which will cause the snow to be banked up behind it but will not offer enough resistance to the wind so as to be destroyed.

Other objects and advantages will be apparent from the following description, and it will be understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views,

Figure 1 is a side elevation of a series of my improved fence sections. Fig. 2 is an end elevation of the same. Fig. 3 is an enlarged detail view of one section of my fence. Fig. 4 is a rear elevation of one section of my fence taken in opposite direction to Fig. 3. Fig. 5 is an enlarged view of the hooks which grasp the uprights. Fig. 6 is a modification of Fig. 5. Fig. 7 is a sectional view along the line 7-7 of Fig. 3. Fig. 8 is an enlarged sectional view showing the means of securing the brace rods to the standards. Fig. 9 is an enlarged detail view of the means provided for vertically securing the fence panel. Fig. 10 is a modification of Fig. 7.

Referring to the drawings, 1 represents the main standards of my fence, which are

preferably made of angle iron, although any other suitable structural iron may be used. For greater substantiality they are inclined at about 30 degrees from the vertical and are joined together near the top by brace rods 2, which serve to strengthen the fence and keep the uprights in spaced relation to one another. The ends of the rods 2 pass through holes 3 in the standards 1 and within said standards are reduced to half thickness one of the reduced portions of one rod passing over the reduced portion of the other and pins 4 secured through the two reduced portions. Secured to the under side of each standard 1 at a point about two thirds of the way up from the ground is a bracing standard 5, between which standard and the main standard is secured a horizontal brace rod 6. Passing from a point near the ground on each bracing standard to the junction of the next adjacent bracing standard and the horizontal brace rod connecting it with the main standard is an additional bracing link 7; two of which are joined at their intersections by buckles 8. By this system of standards and brace members it will be seen that a very substantial fence structure has been provided, which is well adapted to resist the force of the wind.

At a point where the standards 1 and 5 meet the surface of the ground they are bifurcated, one furcation 9 extending vertically downward in the ground for securing the fence, and the other 10 extending horizontally and attached to a plate 11 which rests on the surface of the ground and prevents the fence from sinking of its own weight when the muddy condition of the ground after a thaw would offer but slight support without some such provision.

Between the standards are secured the panels of my snow fence. These panels consist of a plurality of slats 12 of wood or metal as desired, which are secured to the vertical end bars 13 in jalousied relation to one another. These slats are of any desired construction or design as will best resist the force of the wind. An additional vertical brace bar 14 is positioned midway between the end bars and serves to further strengthen the fence panel. To both ends of the end bars 13 are secured laterally extending hooks 15 which slidably grasp the main standards 1 and hold the panels secure. The shanks of these hooks contact

with the longitudinal flange of the angle iron. In the case angle iron is used the hooks are in the form shown in Figs. 5 and 6. On the end of the bar adjacent the flange side of the angle iron standard is a hook of the form shown in Fig. 5. In this form the curved portion of the hook 16 passes around the far edge of the standard and a finger 17 is secured to the shank of the hook and impinges against the flanged side of the main standard. The hooks 15 on the end bars of one frame overlie the similar hooks on the end bars of the adjacent frames, so that when one frame is forced upward by the pressure of the snow, the hooks will engage and impart a starting movement to the adjacent frame, should the adjacent frame fail to move readily.

The hook shown in Fig. 6, which is adapted to secure the fence panel to the main standard from the opposite direction to that of the hook shown in Fig. 5 is provided with a spur member 18, which passes on the opposite side of the standard to that contacted by the main shank of the hook. The main shank of the hook is bent at right angles as at 19, to conform with the surface of the angle iron standard as shown in Fig. 6. To further brace the panel against the force of the wind a horizontal bar 20 is secured midway in the panel, this bar passing through openings in the end bars 13, and terminating in bifurcations 21, which pass on either side of the main standard.

In order to vertically secure the panels on the main standards, I provide the following means: A plurality of recesses 22 are formed in the faces of the main standards, the corresponding recesses in the standards being in the same horizontal plane. The recesses are adapted to receive the heads of spring-held dogs 23, which are pivotally mounted on the shanks of either pair of oppositely positioned hooks. By this means if it is desired to raise a panel an upward push will accomplish the result, and the panel is prevented from moving downwardly by the spring held dogs 23. When it is desired to lower one of the panels the dogs 23 must be held back against the force of the springs 24, when the panel may be lowered.

By this construction it will be seen that I have provided a very substantial snow fence which will prevent snow from drifting into railroad cuts on which it is used, will afford a passage for the wind through it and thus avoid its force to a large extent, will not sink of its own weight into damp ground such as is the result of a thaw, and which has panels which may be raised or lowered.

I do not wish to be confined to any particular material or construction set forth in this specification, but may use other materials and other forms of parts, as for ex-

ample, in the case of the hooks which slidably secure the panels to the main standards, these may be of any desired shape so as to perform the function required of them.

In the modification shown in Fig. 10 the slats 12' are secured to the end bars in parallel spaced relation, the elements 13' and 15', corresponding to the bars 13 and the hooks 15. In this modification the construction of the fence panels is simpler but the form shown in Fig. 7 is believed to offer less resistance to the wind.

What is claimed is:

1. In a snow fence, suitably braced standards, panels slidably mounted on said standards, said panels consisting of a plurality of slats secured in jalousied relation to one another, said standards being provided with a plurality of recesses, hooks on said panels embracing said standards, spring held dogs on said hooks, the heads of said dogs being adapted to be received in said recess.

2. In a snow fence, suitably braced standards, panels slidably mounted on said standards, said panels consisting of a plurality of slats secured in jalousied relation to one another, said standards being bifurcated at their lower extremities, one of said furcations carrying a plate to rest on the ground, the other furcation being adapted to pass into the earth and secure the standards.

3. In a snow fence, suitably braced standards, panels slidably mounted on said standards, said panels consisting of a plurality of slats in jalousied relation to one another, end bars and brace bars securing said slats, hooks on the ends of said end bars adapted to embrace said standards, a bar secured in said end and brace bars parallel to said slats, bifurcations in the ends of said bar, said bifurcations being adapted to embrace said standards.

4. In a snow fence, standards, panels slidably mounted on said standards, recesses in said standards, spring held dogs on extremities of said panels, the heads of said dogs being adapted to engage in said recesses and prevent downward movement of said panels.

5. In a snow fence, standards, panels mounted within said standards, said panels having end bars, hooks on said end bars adapted to slidably embrace the said standards, said panels having vertical and horizontal brace bars.

6. In a snow fence, standards, said standards being bifurcated at their lower extremities, one furcation carrying a plate to rest on the ground, the other furcation being adapted to pass into the earth and secure said standards, recesses in said standards, panels within said standards, hooks on the extremities of said panels, said hooks em-

bracing said standards and adapted to allow a sliding movement of said panels on said standards, dogs mounted on said hooks and adapted to resiliently engage said recesses and prevent downward movement of said panels.

7. In a snow fence, main standards, brace rods between said standards, bracing standards secured to said main standards, bracing links between said main standards and bracing standards, said main and bracing standards being bifurcated at their lower extremities, one furcation carrying a plate to rest on the ground, the other furcation passing into the earth for securing said standards.

8. In a snow fence, suitably braced standards, panels slidably mounted on said standards, said panels consisting of a plurality of slats secured in parallel spaced relation to one another, said standards being provided with a plurality of recesses, hooks on said panels embracing said standards; and means attached to said hooks to allow an upward movement of said panels on said standards, but to prevent a downward movement thereof.

9. In a snow fence, suitably braced standards, panels slidably mounted on said stand-

ards, said panels consisting of a plurality of slats secured in parallel spaced relation to one another, said standards being provided with a plurality of recesses, hooks on said panels embracing said standards, and means to allow an upward movement of said panels on said standards, but to prevent a downward movement thereof.

10. A snow fence comprising suitably braced standards, panels slidably mounted on said standards, said panels consisting of rigid end members and a plurality of parallel spaced slats rigidly secured to said members, and vertical brace rods secured to said slats midway of their lengths.

11. A snow fence comprising supports, anchors on the supports, braces for the supports, spacing means for the supports, adjustable frames carrying snow excluding members and mounted on the supports, a base, and means on the supports adapted to be secured to said base.

In testimony whereof I affix my signature, in presence of two witnesses.

HERMAN J. SCHWEITZER.

Witnesses:

F. E. BANDIMERE,
W. B. MILLER.