

No. 849,633.

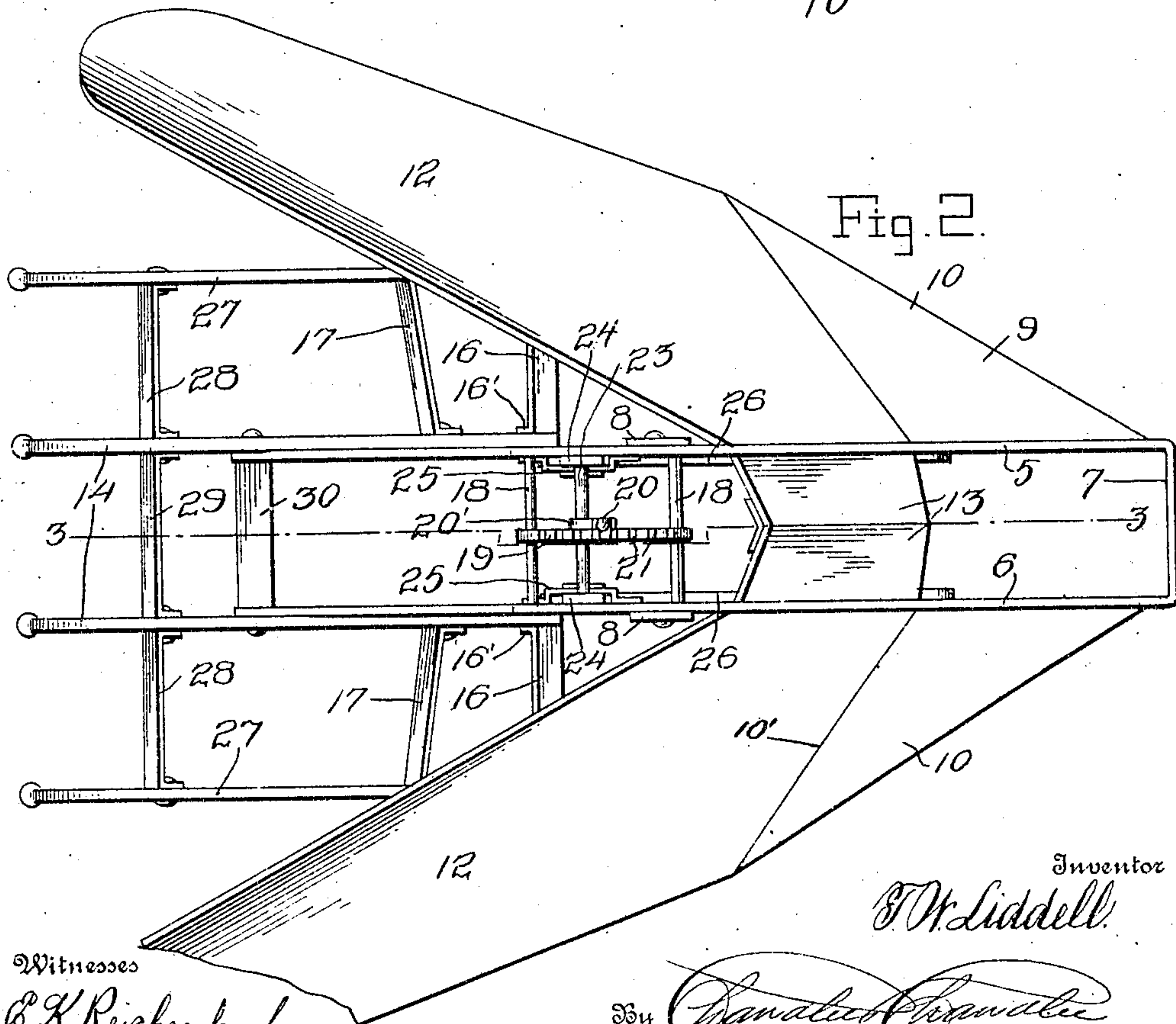
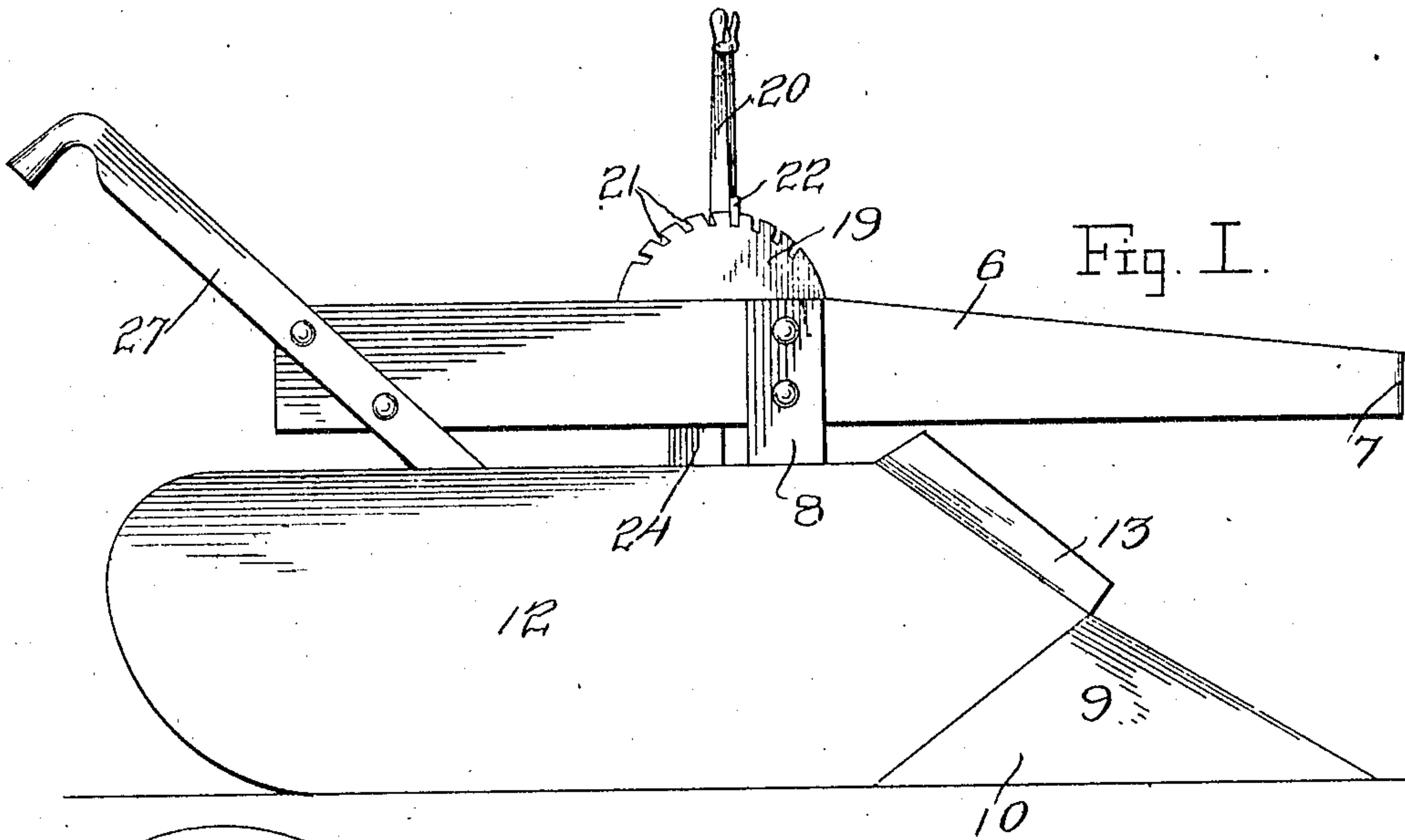
PATENTED APR. 9, 1907.

T. W. LIDDELL.

SNOW PLOW.

APPLICATION FILED JUNE 1, 1906.

2 SHEETS—SHEET 1.



Witnesses
C. K. Reichenbach.
H. B. Mac Nab.

Inventor
T. W. Liddell.
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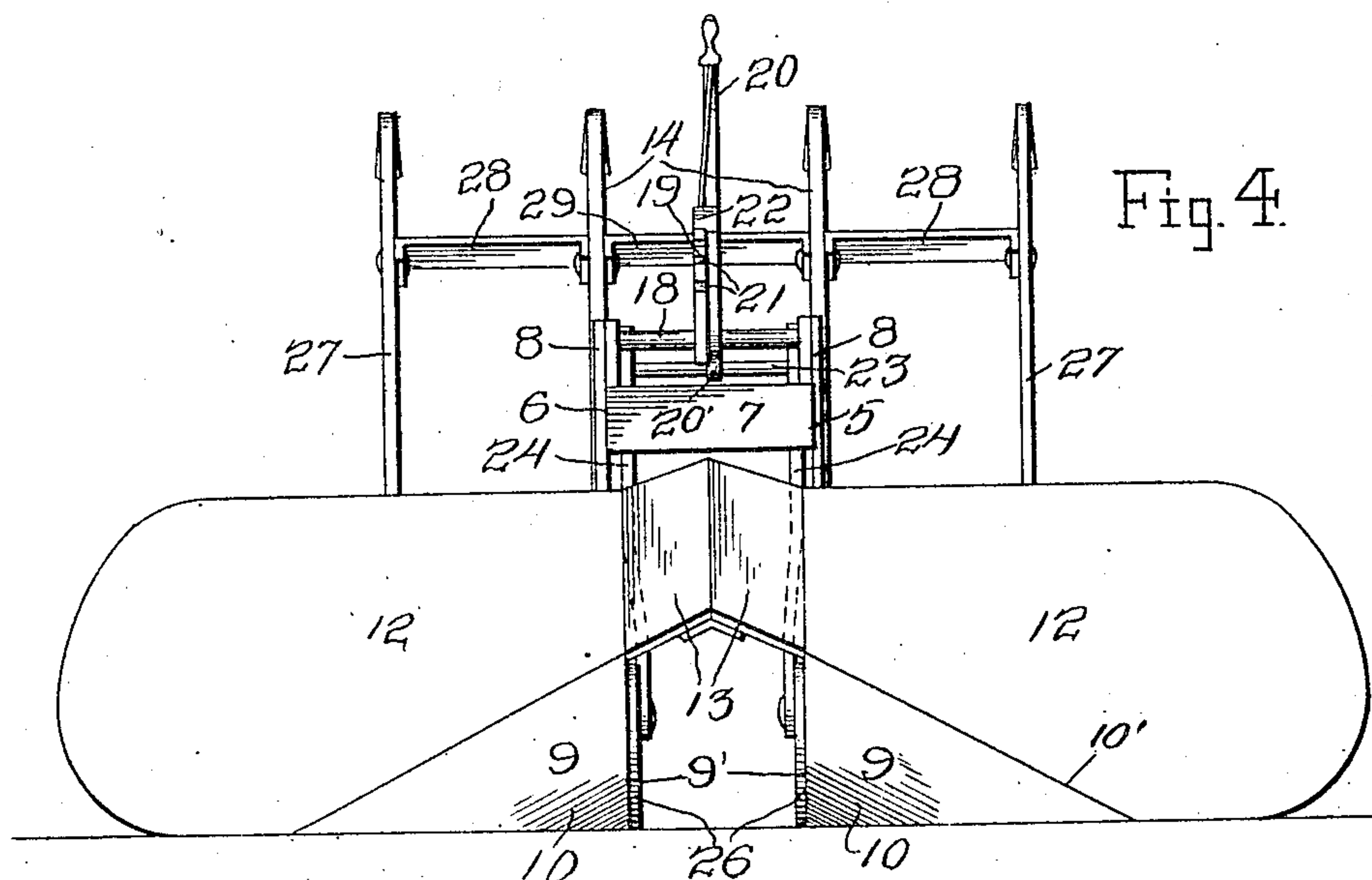
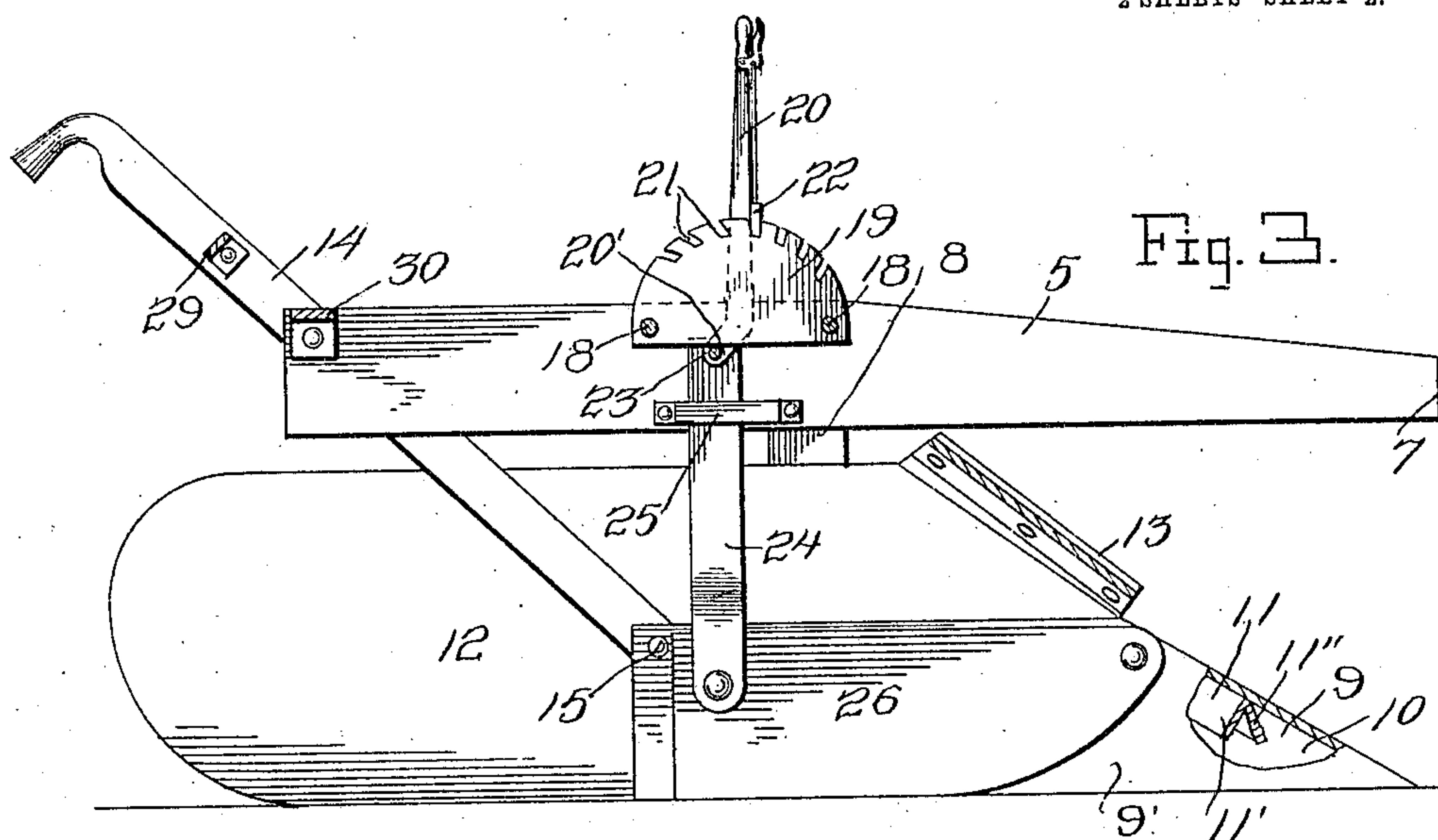
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Witnesses:
C. H. Reichenbach.
A. B. Mac Neil

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Handkerchiefs

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UNITED STATES PATENT OFFICE.

THOMAS W. LIDDELL, OF AUSON, WISCONSIN.

SNOW-PLOW.

No. 849,633.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed June 1, 1906. Serial No. 319,790.

To all whom it may concern:

Be it known that I, THOMAS W. LIDDELL, a citizen of the United States, residing at the town of Auson, in the county of Chippewa, State of Wisconsin, have invented certain new and useful Improvements in Snow-Plows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to plows, and more particularly to snow-plows, and has for its object to provide a plow for use in clearing snow from roads and sidewalks, which will be strong, while being comparatively simple in arrangement and structure, and which will include means for raising the shares and deflectors when passing over obstructions.

It is to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the present plow. Fig. 2 is a top plan view. Fig. 3 is a section on line 3 3 of Fig. 2, taken longitudinally thereof between the beams. Fig. 4 is a front view.

Referring now to the drawings, the present plow comprises a pair of spaced longitudinally-extending beams 5 and 6, which are parallel and which are connected at their forward ends by means of a transverse member 7.

Each beam has secured thereto a depending stock 8, to which there is secured a share 9, the landsides 9' of the shares being directed toward each other, while the moldboards 10 diverge rearwardly. Secured between the moldboards and landsides there are deflector-supporting members 11, which extend upwardly and rearwardly to receive the rearwardly-divergent and outwardly-curved deflectors 12, which join the moldboards at their rearward diagonal edges 10'. The deflector-supporting members 11 consist each of two plates 11' and 11'', respectively, which are connected at their upper edges, the plate 11' being secured to the face of the landside, while the plate 11'' is secured to the inner face of the moldboard.

The deflectors 12 have inwardly-extending portions 13 at their forward ends, which are

connected as shown. Handles 14 are secured to the rearward ends of the beams 5 and 6 and extend downwardly to the rearward ends of the landsides 9' of the shares, to which they are secured, as shown at 15, by means of bolts, which are also passed through the angularly-turned ends 16' of braces 16, which are thus secured to the landsides and which are also secured to the deflectors 12. Other braces 17 are secured to the handles 14 between the beams and the landsides and are also secured to the deflectors rearwardly of the braces 16.

A pair of longitudinally-spaced transverse rods 18 are engaged in the beams 5 and 6 adjacent to their rearward ends, and mounted upon these rods there is a vertical longitudinally-extending bracket-plate 19, to which there is pivoted a hand-lever 20. The bracket-plate has an arcuate series of rack-teeth 21 upon its upper edge, and the lever is provided with a dog 22 for movement into and out of engagement with these teeth to hold the lever at different points of its movement.

The lower end of the lever 20 is turned rearwardly, as shown at 20', and has pivotally engaged therein a transverse rod 23, which is engaged at its ends in a pair of vertical plates 24, these plates lying one against the inner face of each of the beams 5 and 6 and in pairs of guides 25, which are secured to the beams, the plates being susceptible of some movement laterally within the guides to permit of upward movement of the plates when the upper end of the hand-lever 20 is moved rearwardly.

Shoes 26 are pivoted at their forward ends to the landsides 9' of the shares, and thus lie between the shares, and the shoes are movable upon their pivots to project below the lower edges of the landsides or to lie thereabove, the plates 24 being pivoted at their lower ends to the shoes for movement of the latter upon their pivots, as will be readily understood, and it will thus be seen that through the medium of the lever 20 the shoes 26 may be brought into and out of engagement with the ground to move the forward end of the plow vertically and that the latter may thus be elevated to pass obstructions in its path.

Handles 27 may be secured to the deflectors at their unions with the braces 17, as shown, and in this case they are connected with the handles 14 by means of braces 28,

upper and lower braces 29 and 30 connecting the handles 14, as shown, and the provision of these extra handles 27 makes it possible for the plow to be operated by a number of
5 persons when working in heavy snow.

What is claimed is—

1. A plow of the class described comprising spaced longitudinal beams, connections
10 between the beams, stocks carried by the beams, shares carried by the stocks, deflectors connected with the shares, braces for the deflectors, handles connected with the shares and beams, shoes pivoted to the shares and lying therebetween for move-
15 ment into and out of position to extend below the shares, and means for moving the shoes.

2. The combination with a plow including spaced beams, and shares connected with the
20 beams, of means for elevating the shares, consisting of rods connecting the beams, a bracket-plate mounted upon the rods, a lever pivoted to the bracket-plate, a rod engaging the lever for vertical movement when the

lever is moved, plates connected with the rod 25 and shoes connected with the plates.

3. The combination with a plow including spaced beams and shares carried by the beams of ground-engaging shoes pivoted to the shares for movement into and out of position 30 to hold the shares elevated, upwardly-extending plates pivoted to the shoes for movement thereof, guides for the plates secured to the beams, a rod connected with the plates, cross-rods connected to the beams, a bracket-plate 35 mounted upon the cross-rods, a lever pivotally mounted upon the bracket-plate and connected with the first-named rod for movement of the first-named plates vertically when the lever is moved, and means 40 for holding the lever at different points of its movement.

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

THOMAS W. LIDDELL.

Witnesses:

ALBION G. STAFFORD,
CHARLES G. HUECK.