March 1, 1932. A. NIEMAN 1,847,133

SNOW SCRAPER

Filed Aug. 15, 1930

Fig. 1.

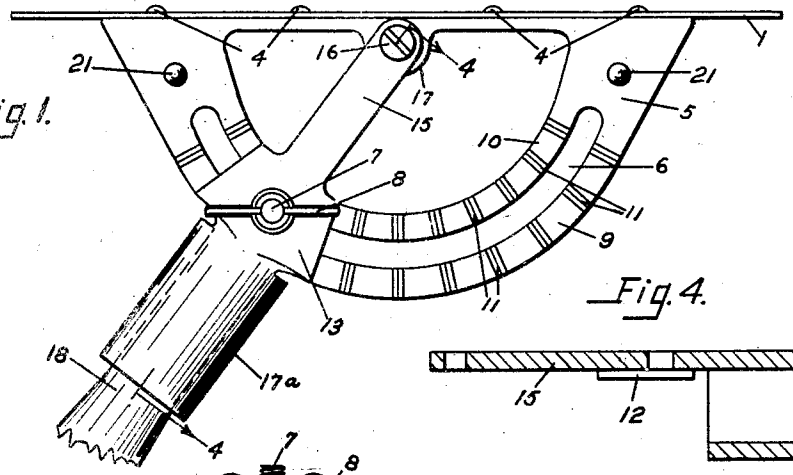


Fig. 4.

Fig. 2.

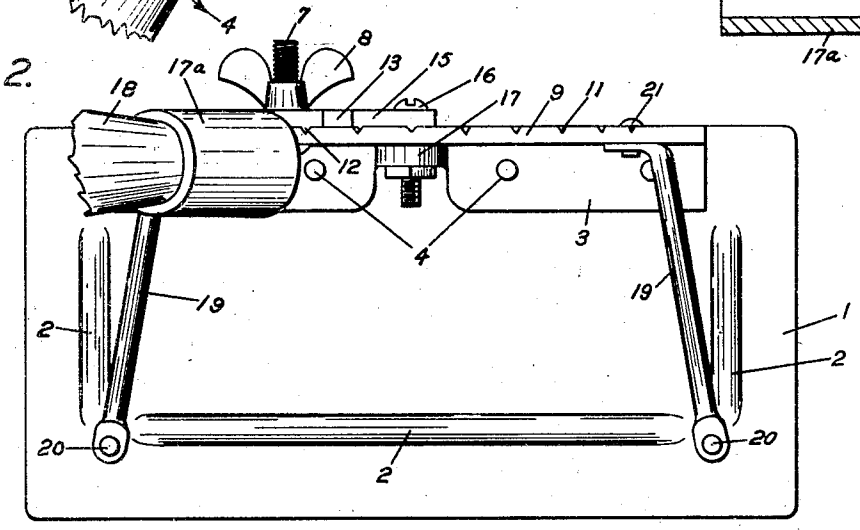
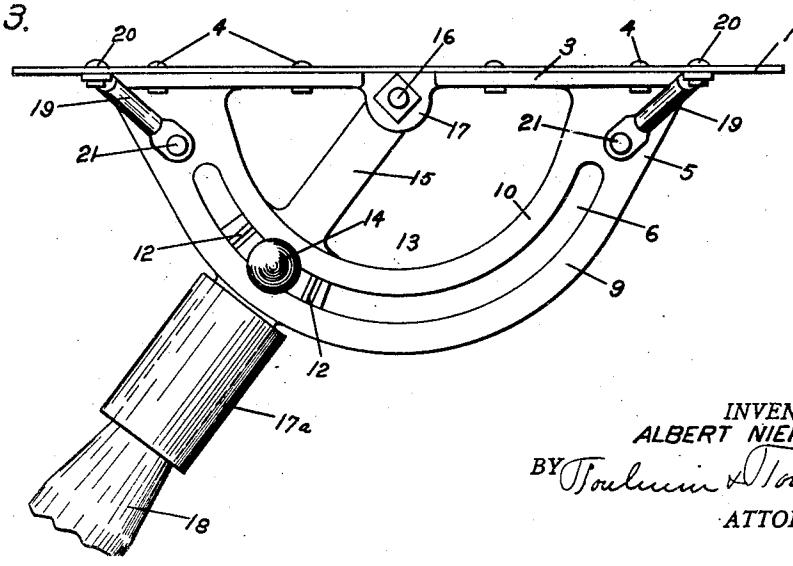


Fig. 3.



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UNITED STATES PATENT OFFICE

ALBERT NIEMAN, OF FRANKLIN, OHIO

SNOW SCRAPER

Application filed August 15, 1930. Serial No. 475,513.

My invention relates to a snow scraper.

It is the object of my invention to provide a snow scraper that is adjustable as to the angularity of the scraping blade with respect to the handle so that the conditions of the snow may be met by a proper adjustment of the mechanism.

It is a further object to provide a novel means of very cheaply providing such an adjustment while at the same time securing the requisite strength.

It is a still further object to provide a system of bracing in combination with the adjusting means.

Referring to the drawings:

Figure 1 is a top plan view of the scraper;

Figure 2 is an inside elevation thereof;

Figure 3 is a bottom plan view thereof;

Figure 4 is a section on the line 4—4 of Figure 1.

Referring to the drawings in detail, 1 is a vertical scraper plate having struck-up ribs 2 arranged about the margin of the plate.

On the inside face of the plate is mounted an arcuate adjusting bracket comprising a vertical face plate 3 attached by the bolts 4 to the scraper 1.

From this face plate extends an arcuate member 5 having a slot 6 for receiving a clamping bolt 7 that is clamped by the wing nut 8.

The upper face of the portions 9 and 10 of the arcuate plate 5 on either side of the slot 6 are provided with V-shaped grooves 11 aligned with one another for receiving a wedge shaped shoulder 12 adjacent each side of the clamping plate 13, which carries the bolt 7. This clamping plate 13 rests upon the members 9 and 10 of the arcuate plate 5 while the head 14 of the bolt 7 engages the underside of the arcuate members 9 and 10. The clamping plate 13 is provided on one end with a finger 15 which is pivoted at 16 to an eye 17 on the face plate 3.

The other end of the clamping plate 13 is formed into a thimble 17*a* for receiving the scraper handle 18.

The angular relationship between the plate 1 and the arcuate adjusting plate 5 is maintained and the strains thereon are absorbed by the diagonal braces that extend downwardly and outwardly from the plate 5 to the scraper 1 as at 19. These braces are attached at 20 to the plate 1 and at 21 to the plate 5.

It will be understood that I desire to comprehend within my invention such modifications as may be clearly embraced within the scope of my claims and invention.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In combination, a scraper plate, a face plate attached to the scraper plate and having thereon an angularly disposed slotted arcuate adjusting plate, braces between said adjusting plate and scraper plate and a handle pivotally mounted on the face plate and adjustably clamped through the slot to the adjusting plate.

2. In combination, vertically disposed scraper plate having struckup reenforcing ribs thereon, a face plate attached to the top thereof, an arcuate adjusting plate integral with said face plate, braces between the bottom of the scraper plate and the adjusting plate, a handle, means pivotally supporting the handle on the face plate, and means adjustably connecting the handle and adjusting plate.

3. In combination, vertically disposed scraper plate, a face plate attached to the top thereof, an arcuate adjusting plate integral with said face plate, a handle, means pivotally supporting the handle on the face plate, means adjustably connecting the handle supporting means and adjusting plate and diagonal brace means extending from the adjusting plate to the corners of the scraper plate.

4. In combination, a vertical scraper plate, an arcuate slotted adjusting plate on said scraper having an upper face transversed by a plurality of depressions, a plate having a finger pivoted on said adjusting plate adjacent the scraper plate, spaced rib members on the underside of said plate adapted to engage in said transverse depressions in the adjusting plate, a clamping means extending through and beneath said slot in the adjusting plate for adjusting the position of said

handle support with respect to said scraper plate and a handle thimble on said plate.

5. In combination, a vertical scraper plate, an arcuate adjusting plate on said scraper having a slotted upper face transversed by a plurality of depressions, a plate having a finger pivoted on said adjusting plate adjacent the scraper plate, spaced rib members on the underside of said plate adapted to engage in said transverse depressions in the adjusting plate, a clamp means extending through and beneath said adjusting plate for adjusting the postion of said handle support with respect to said scraper plate and diagonal braces between said scraper plate and said adjusting plate.

In testimony whereof, I affix my signature.

ALBERT NIEMAN.