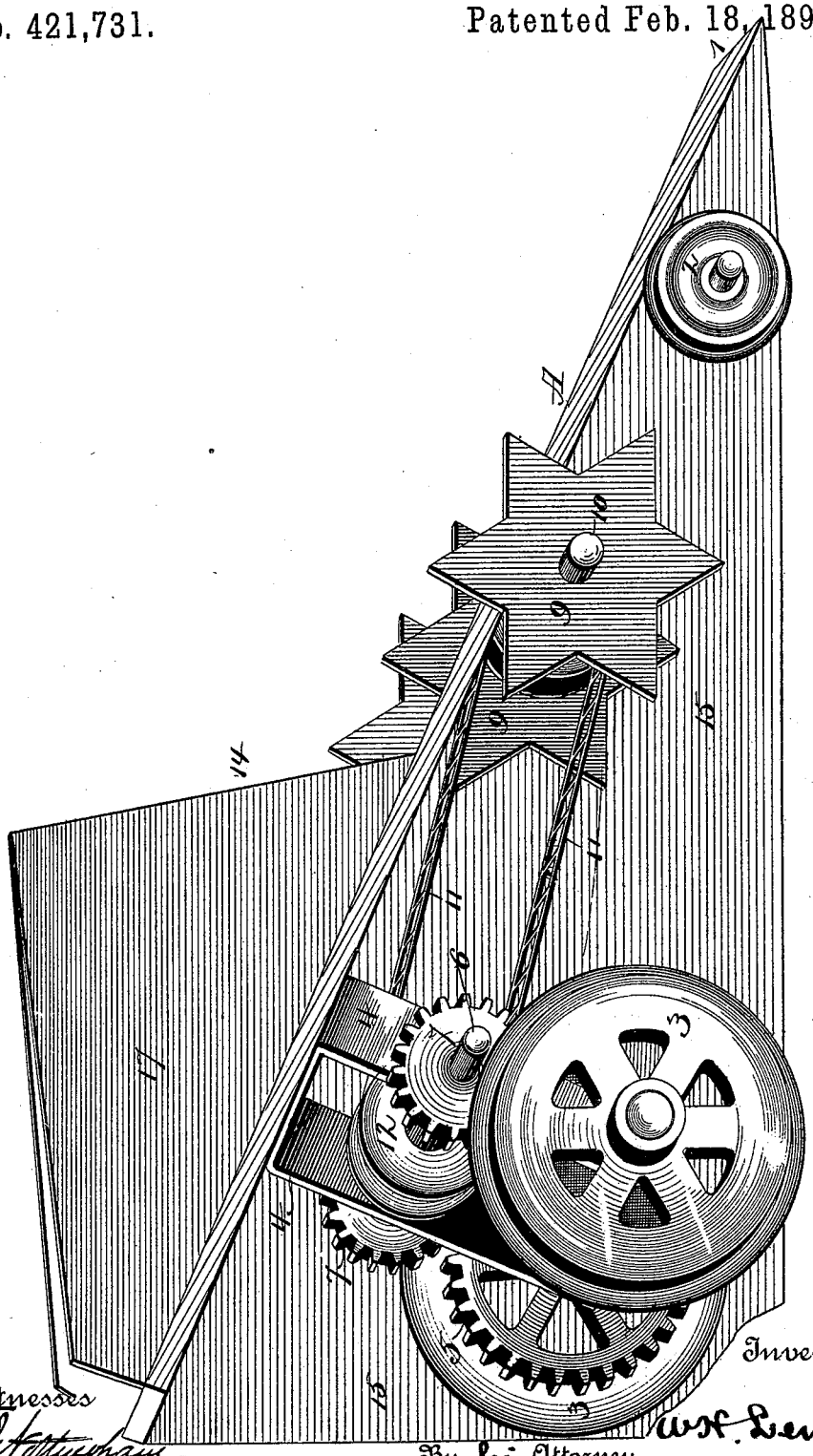
(No Model.)

W. H. LENNOX.

SNOW PLOW.

No. 421,731. Patented Feb. 18, 1890.



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UNITED STATES PATENT OFFICE.

WILLIAM H. LENNOX, OF MINEOLA, NEW YORK.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 421,731, dated February 18, 1890.

Application filed December 6, 1889. Serial No. 332,637. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. LENNOX, a resident of Mineola, in the county of Queens and State of New York, 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.

My invention relates to an improvement in snow-plows, the object being to provide a plow which will effectually clear the track of snow, ice, or other obstacles without becoming inextricably embedded in the snow; and with this end in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

The accompanying drawing is a view in perspective of my improved plow with one side removed to show the internal gearing.

A represents the top of the plow, which slopes downward toward the forward end to form the point 1. The top is built on a suitable frame-work of stringers and other supports and carried on the small truck-wheels 2 2, near the forward end and on the drive-wheels 3 3 at the rear. The axles upon which these wheels turn are held in the usual journal-boxes, the forward ones preferably in the frame and the rear ones in the lower end of the yoke 4, which depends from the under side of the sloping top. The drive-wheels 3 3 are furnished inside, or else the axles in lieu thereof are furnished with large gear-wheels 5 5, and a shaft 6, revolubly supported in the upper end of the yoke, is provided with pinions 7 7, which are meshed with the gear-wheels 5 5 and driven thereby. Several star-shaped cutters 9 9 9, preferably three in number, are secured on a shaft 10, supported a short distance below the top and back of the forward wheels. The middle cutter extends through a slot in the slanting top, while the outer ones cut outside sufficiently far to allow for the swaying of the widest cars. These cutters are revolved backward through the medium of a belt or sprocket-chain 11, which is passed over the belt or sprocket-toothed wheel 12 on the shaft 6 and the one on shaft 10. Thus the cutters are kept revolving as long as the machine is in operation and the hard chunks and crusts of snow are broken and thrown upward and backward by the cutters. To prevent this snow and ice from falling back onto the track again the plow 17 is secured on the top just back of the cutters. This plow has a slanting forward edge 14, and its wings extend outwardly, so as to throw the snow over the sides.

As a protection for the wheels and gearing, the sides 15 15 are secured to the machine. By this means snow is prevented from working its way into the machinery or upon the track again.

It is evident that slight changes might be resorted to in the form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I do not wish to limit myself to the particular construction herein set forth; but,

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

1. In a snow-plow, the combination, with a frame having a sloping top, of several rotary cutters projecting above the plane of the top and adapted to break the crusts or chunks of snow or ice as they pass over the top, substantially as set forth.

2. In a snow-plow, the combination, with a frame having a sloping top, and rotary cutters projecting above the plane of the top, of a plow located on the top back of the cutters, said plow having a sloping forward edge, substantially as set forth.

3. The combination, with a frame mounted on suitable wheels and having a sloping top and pointed forward end, of rotary cutters extending above the plane of the sloping top, and a plow located on the top back of the cutters and having a sloping forward edge, substantially as set forth.

4. The combination, with a frame having a sloping top, and a plow with a sloping forward edge located on the top, of rotary cutters extending above the plane of the top, drive-wheels and truck-wheels upon which the frame is mounted, and means for communicating motion from the wheels to the cutters, substantially as set forth.

5. The combination, with the frame having a sloping top, and a plow with a sloping for-

ward edge located on the top, of a set of star-shaped cutters extending through and beyond the edges of the sloping top, truck-wheels and drive-wheels upon which the frame is supported, pinions operated by gear-wheels on the drive-wheel axles, and a belt or chain for communicating a backward rotary motion to the cutters, substantially as set forth.

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

WILLIAM H. LENNOX.

Witnesses:
B. BURT TITUS,
JOSEPH BURT.