

(No Model.)

A. LINDGREN.

SUBSOILING DEVICE FOR LISTER PLOWS.

No. 461,537.

Patented Oct. 20, 1891.

Fig. 1.

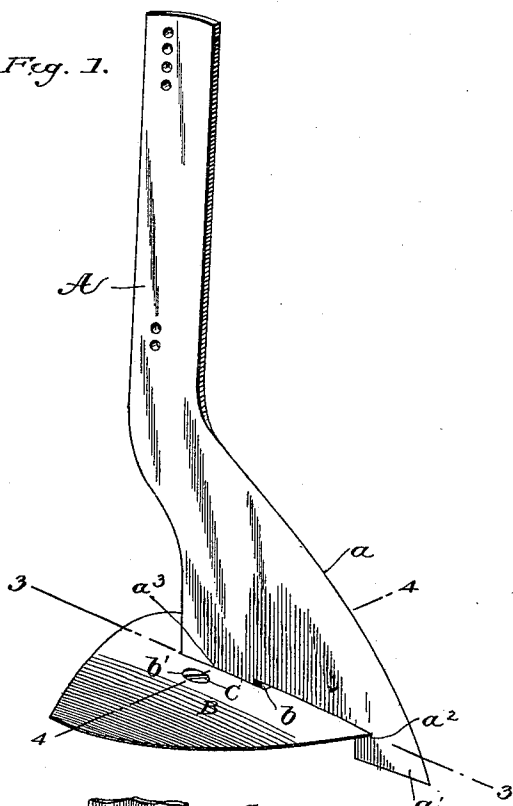


Fig. 2.

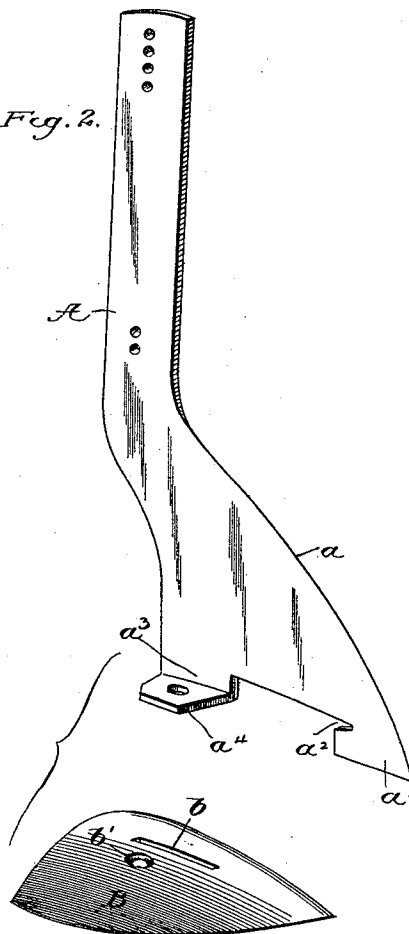


Fig. 3.
on line 3-3

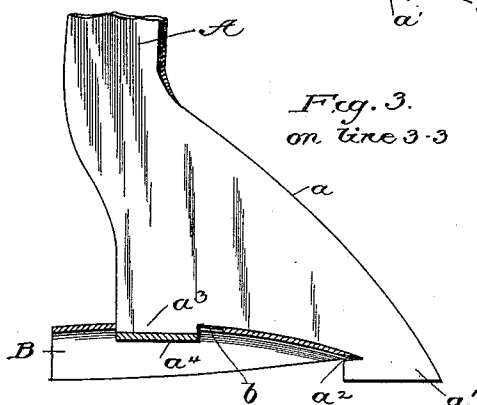
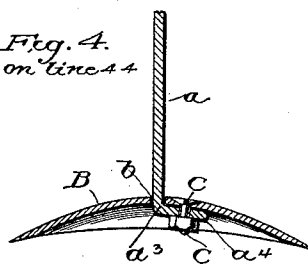


Fig. 4.
on line 4-4



Witnesses:

N. M. Mortimer.

A. R. Kennedy.

Inventor:

August Lindgren

By his Att'y
Chas. J. Dodge

UNITED STATES PATENT OFFICE.

AUGUST LINDGREN, OF MOLINE, ILLINOIS, ASSIGNOR TO THE MOLINE
PLOW COMPANY, OF SAME PLACE.

SUBSOILING DEVICE FOR LISTER-PLOWS.

SPECIFICATION forming part of Letters Patent No. 461,537, dated October 20, 1891.

Application filed January 5, 1891. Serial No. 376,770. (No model.)

To all whom it may concern:

Be it known that I, AUGUST LINDGREN, of Moline, in the county of Rock Island and State of Illinois, have invented certain Improvements in Subsoiling Devices for Lister-Plows, of which the following is a specification.

Lister-plows as commonly used at the present day are provided with a subsoiling device consisting of a vertical sharp-edged standard having a sharp-edged horizontal foot of triangular form. In order to permit the ready removal and renewal of this foot when worn and to hold it firmly in place when in action, I have devised a novel manner of constructing and uniting the parts.

In the accompanying drawings, Figure 1 is a perspective view of the complete device. Fig. 2 is a perspective view of the two parts separated. Figs. 3 and 4 are vertical sections on the lines 3 3 and 4 4, respectively.

Referring to the drawings, A represents a standard of any suitable form, having at its lower end the sharp forward end a , the downward extension a' , with notch a^2 on its rear edge, and the downward extension a^3 , with the laterally-bent perforated lip a^4 at the heel.

B represents the shoe or shovel, of a triangular form when viewed from above, having sharp forward edges, a longitudinal slot b , and a vertical hole b' adjacent to the slot. The rear and middle portions of the shoe are elevated or arched in such manner as to leave a space thereunder.

In assembling the parts the lip a^4 is inserted through the slot in the shoe and the latter turned over into operative position and then

pushed forward until its front end enters the notch a^2 . This brings the hole b' in the shoe in register with the perforation in the lip a^4 , and a bolt C is inserted therethrough and tightened, as in Fig. 4, so as to hold the parts firmly in position.

It will of course be understood that the neck or extension a^3 is of less width from front to rear than the length of the slot in order that the shoe may be moved endwise into the notch.

Under my construction the upper face of the shoe is smooth and unobstructed, and the fastening devices are concealed and protected beneath the shoe.

It will be observed that under my construction of the parts the shoe is covered, secured, and protected at the point by the standard, and that the standard, having a wide flat bearing in the slot, effectually resists any lateral or twisting strains which may tend to throw the shoe laterally out of position.

Having thus described my invention, what I claim is—

The standard having at its lower end the notch and the lip, in combination with the shoe slotted to admit the lip and adapted to enter the notch and a locking-bolt, substantially as described.

In testimony whereof I hereunto set my hand, this 6th day of December, 1890, in the presence of two attesting witnesses.

AUGUST LINDGREN.

Witnesses:

S. M. HILL,
M. G. MARONEY.