

UNITED STATES PATENT OFFICE.

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SCRAPER.

988,601.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JESSIE E. SMITH, a citizen of the United States, residing at Fayetteville, in the county of Lincoln and State of Tennessee, have invented a new and useful Scraper, of which the following is a specification.

This invention relates to excavating, and more especially to scrapers such as are sledged; and the object of the same is to produce a scraper which is reversible so that it may be used either side up. This object I accomplish by the construction hereinafter described and claimed and as shown in the accompanying drawing, wherein—

Figure 1 is a plan view of this scraper complete. Figs. 2, 3 and 4 are sections on the lines 2—2, 3—3 and 4—4 of Fig. 1. Fig. 5 is an elevation of the furrow runner taken from the inside. Fig. 6 is a detail view of the brace. Fig. 7 is a section on the line 7—7 of Fig. 1.

In the drawings the numeral 1 designates a runner, such as a piece of board stood on edge, and its lower and upper edges are by preference covered with shoes 2 as of metal.

The numeral 3 designates a spreader wing, also by preference a piece of board standing on edge, and 4 is a sheet of metal secured to its outer face and bent outward as at 5 to form the scrapers proper. These two members 1 and 3 are connected by a strong hinge 6 at their front ends as shown, and they normally diverge at least as much as shown in Fig. 1 and possibly more.

The numeral 7 designates a brace as best seen in Fig. 6, having an eye 8 at one end which engages a staple or eye 9 in the inner face of the wing 3, and at its opposite end two oppositely extending bills blocks 10, either of which may be engaged with any one of the eyes 11 in the inner face of the runner 1, whereby the angle of the two members with relation to each other may be adjusted and maintained.

By preference, this improved scraper is drawn over the ground through the instrumentality of a chain 15, one extremity of which engages a hook 16 on the outside of the runner 1 and the other extremity of which engages a hook 17 at the rear end of the wing 3, while any link within its length may engage the hook 18 of a clevis 19 (see Fig. 7) whose eyes 20 stand above and below a whiffletree 21 and are pivotally connected therewith by a bolt 22. It is ob-

vious that this may be a swingletree or a doubletree, or that in fact any other means may be provided for dragging the scraper over the ground; but I consider it important that some such device as the hook 18 be used so that it may engage any of the links of the chain 15 and thereby adjust the difference in length from the hook 18 to the hook 16 and from the hook 18 to the other hook 17 so that the scraper may be drawn over the ground with its wings standing at a proper angle to the line of draft. Obviously by engaging a bill of the brace 7 in the proper eye 11 the distance of the rear end of the wing from the runner may be adjusted, and hence the width of the path being scraped, and the resistance thus set up, together with the nature of the ground being worked, will indicate to the operator the amount of power necessary and the number of horses to be employed. Perhaps the most important feature of my invention, however, consists in the means I employ for permitting it to be reversed when the operator reaches the end of his work, especially where he wants the scraped material to be delivered in the same direction as formerly and therefore cannot turn about and proceed backward along the course he has traveled.

Pivoted at the point 25 to the inner face of the runner 1 is a standard 26, preferably of strap metal, carrying at each edge a foot rest 27, and bent at its upward end so as to support a seat 28 pivotally mounted thereon as at 29. Stops 30 in the inner face of the runner 1 are also provided. As best seen in Fig. 5 this standard and seat may be thrown upward against one of the stops 30 when it will face to the right or always toward the angle between the two members 1 and 3; and it will be clear that by turning the entire standard and seat upon its pivot 25 it may be caused to project beyond the other edge of the runner 1 and the seat turned upon its pivot 29 to face in the opposite direction which will yet cause it to face the hinge. A handle 32 is secured to the inner side of the wing 3 as shown. Therefore, when the operator reaches the end of the line of work, and drives his horse or team around a loop to reverse the direction, he turns the seat and standard forward to the position dotted in Fig. 5, and then grabs the handle and lifts the wing bodily over the runner so that the opposite edge 5 of the plate 4 strikes the ground, and then reverses

the position of the seat standard 26 and swings the seat 28 upon its pivot 29 to cause it to face toward the front. Resuming his seat and picking up the reins, he then drives
5 back along the line of travel and the wing will deliver the scraped material in the same direction as formerly. The double bill 10 at the free end of the brace 7 becomes useful in this connection, because it may be that he
10 will prefer to hook the other bill into the eye 11 so that the brace cannot become accidentally disengaged therefrom.

What is claimed is:

In a scraper, the combination with a run-
15 ner, a series of eyes along its inner face, a wing hinged to its front end, and draft

means for these members; of a brace linked at one end to the inner side of the wing and having at its other end two bills facing in opposite directions, a seat standard pivoted 20 at one end to the inner side of the runner and having its other end bent toward the wing, and a seat mounted on an upright pivot on said bent end.

In testimony that I claim the foregoing as 25 my own, I have hereto affixed my signature in the presence of two witnesses.

JESSIE E. SMITH.

Witnesses:

C. M. SPRAY,
J. F. SMITH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
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