Nov. 30, 1926. 1,609,107

F. H. BEACH ET AL

SELF HOLDING SCRAPER

Filed Jan. 17, 1924

Fig. 1.

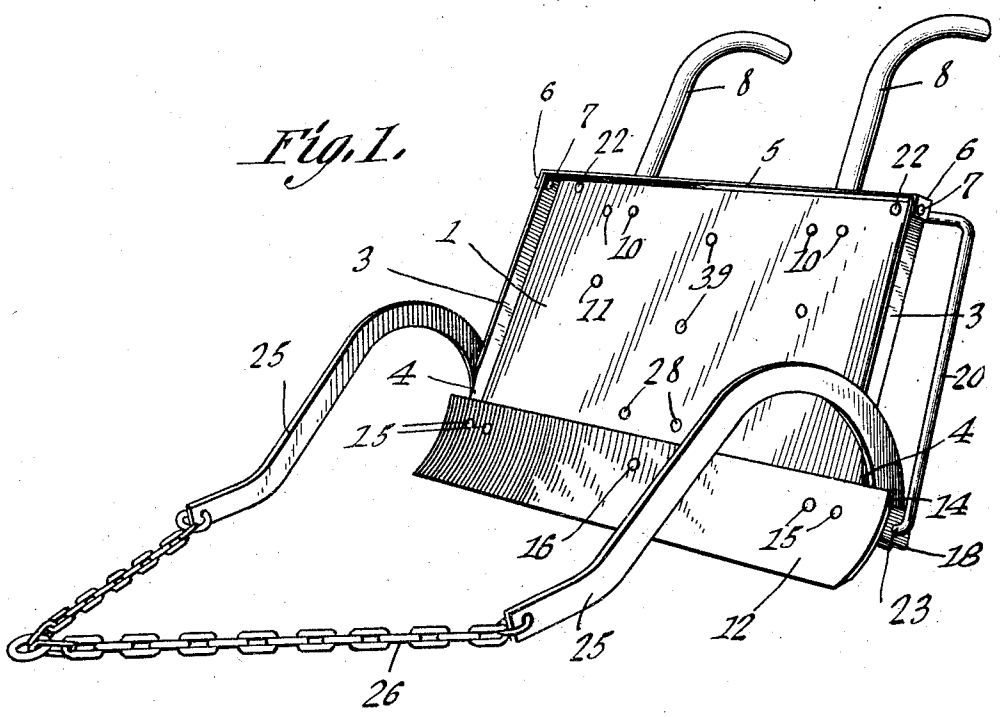
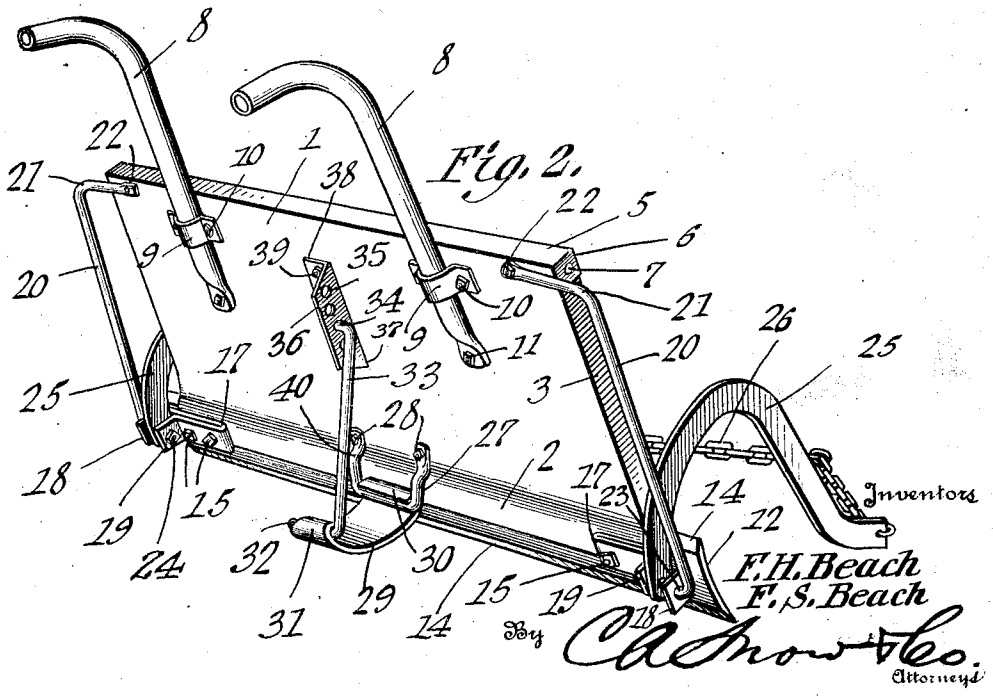


Fig. 2.



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Patented Nov. 30, 1926. 1,609,107

UNITED STATES PATENT OFFICE.

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SELF-HOLDING SCRAPER.

Application filed January 17, 1924. Serial No. 686,731.

This invention aims to provide a scraper which will stand upright when being filled, the scraper including a reversible blade, and provided with a shoe facilitating the holding of the scraper in proper position, novel means being provided for adjusting the shoe, so that the scraper may be held at any desired angle with respect to the surface of the soil.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that, within the scope of what is claimed, changes in the precise embodiment of the invention shown, can be made, without departing from the spirit of the invention.

In the drawings:

Figure 1 is a perspective view wherein the front of the scraper is shown; Figure 2 is a perspective view wherein the rear of the scraper is shown.

The scraper forming the subject matter of this application preferably is made of metal throughout and comprises a body 1, in the form of a plate. The lower portion of the body 1 is fashioned into a rearwardly concaved seat 2, extended from one side of the body to the other. The body 1 has side flanges 3 which taper out to nothing, as indicated at 4, at a point adjacent to the upper edge of the seat 2. The body 1 is provided with a top flange 5, the ends of which, marked by the numeral 6, are overlapped on the side flanges 3 and attached thereto by securing elements 7. Handles 8 extend downwardly along the rear surface of the body 1 and are received within brackets 9 held by securing members 10 on the body 1, securing devices 11 connecting the lower ends of the handles 8 with the body 1.

A concaved blade 12 fits in the seat 2 of the body 1, the blade being beveled as at 14, on its upper and lower edges, so that the blade can be reversed upon occasion. Bolts 15 or the like connect the blade 12 at points adjacent to its ends with the seat 2 of the body 1, and an intermediate bolt 16 or the like connects the blade 12 with the seat 2 of the body 1.

Double-walled U-shaped brackets 17 are mounted on the rear surface of the part 2 of the body 1 and are held thereon by the bolts 15 which aid in the retaining the blade 12, these bolts, therefore, having a double function. The forward wall of each bracket 17 is longer than the rear wall thereof, the forward wall of each bracket carrying a rearwardly extended outer ear 18, and the rear wall of each bracket carrying a rearwardly extended inner ear 19. Guards 20 are located at the ends of the body 1 and may serve as handles, whereby the scraper may be moved conveniently endwise. Each guard 20 is provided with an upper arm 21, extended inwardly along the rear surface of the body 1 and secured thereto as indicated at 22. Each guard 20 is supplied at its lower end with an inwardly extended arm 23, prolonged through the ears 18 and 19 of the brackets 17. Nuts 24 are threaded on the inner ends of the lower arms 23, and, coacting with the inner ears 19 of the brackets 17, hold the parts 23 in place in the brackets. Draft-members 25, which may be goosenecks, extend between the guards 20 and the side flanges 3 of the body 1, the lower or rear ends of the draft members being located between the ears 18 and 19 of the brackets 17 and being mounted to swing vertically on the lower arms 23 of the guards 20. The forward ends of the draft members 25 may be connected by a chain 26 or any other suitable draft means.

An inverted U-shaped hanger 27 is attached by securing devices 28 to the rear surface of the body 1, and is offset, as at 40, to correspond with the rearwardly concaved seat 2 of the body 1. The numeral 29 marks a curved rearwardly extended shoe, provided at its forward end with a bearing 30, engaged with the intermediate portion of the hanger 27, and so mounting the shoe 29 that the shoe may be adjusted vertically. At its rear end, the shoe 29 is supplied with a transverse socket 31, receiving a transverse finger 32 on the lower end of an upwardly extended brace 33, the brace being equipped at its upper extremity with a transverse finger 34 adapted to be received in openings or seats 35 fashioned in the rearwardly extended flange 36 of an angle bracket 37, the base flange 38 of which is attached by securing members 39 to the body 1.

The scraper forming the subject matter of

this application preferably is made entirely of steel, and is well adapted to long continued use. The blade 12 is concaved, and the concavity of the blade strengthens the device materially and also assists in causing the scraper to stand in the proper upright position when the scraper is being filled. Since the blade 12 is beveled or sharpened on both of its horizontal edges, as shown at 14, the blade may be reversed on the securing elements 15—16, and, thus, a new and sharp edge may be presented, when one edge has become worn. The shoe 29 may be adjusted at various angles with respect to the body 1, because the arm 34 on the upper end of the prop or brace 33 may be engaged in any of the seats 35 in the flange 36 of the angle bracket 37. The shoe 29 can be set at any desired angle with respect to the body 1, thus adjusting the angle between the body and surface of the soil, and causing the scraper to fill readily, regardless of the nature of the material which is being moved. The shoe 29, it is to be observed, is located midway between the ends of the body. There is an advantage in using a single shoe, and in locating the same intermediate the ends of the body, because when the shoe is located as aforesaid, it is easier for the operator to balance the scraper, when turning it over and when getting it in position to load, than it would be if the shoe were located otherwise. Furthermore, a scraper provided with a single centrally located shoe will ride steadier than will a scraper provided with shoes at its ends. Since the body 1 is provided with the flanges 3 and 4, the body is reinforced; and, further, the carrying capacity of the scraper is increased.

We claim:—

A scraper comprising a plate-like body, a blade mounted on the body, double walled U-shaped brackets mounted on the body, securing devices each connecting the blade and one of the brackets with the body, the forward wall of each bracket being longer than the rear wall thereof, the forward wall of each bracket carrying a rearwardly extended outer ear, and the rear wall of each bracket carrying a rearwardly extended inner ear, combined handles and guards located at the ends of the body, the combined handles and guards being provided with upper arms secured to the body, and with inwardly extended lower arms prolonged through the ears of the brackets and secured therein, and draft members extended between the guards and the ends of the body, the draft members extending between the ears of the brackets and being mounted to swing on the lower arms of the combined guards and handles.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures.

FITCH H. BEACH
FRED S. BEACH.