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E. E. BRANNON
TULE AND SOD SCRAPER
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Fig. 1

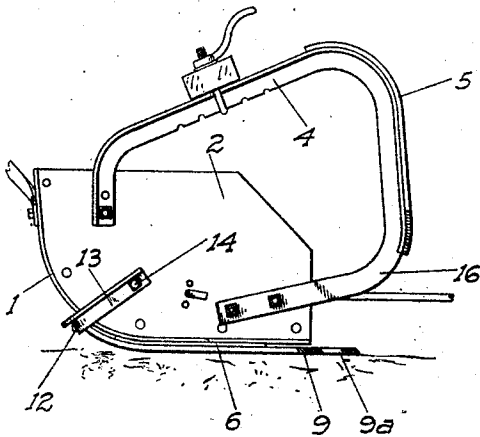


Fig. 2

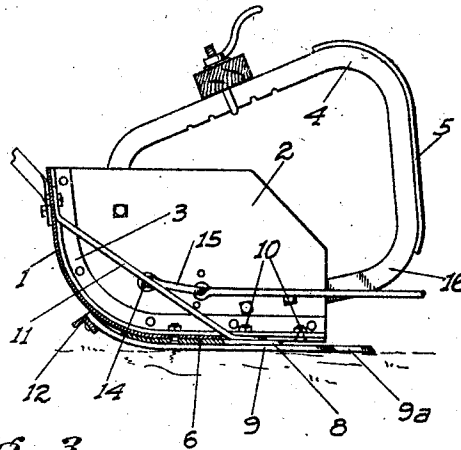
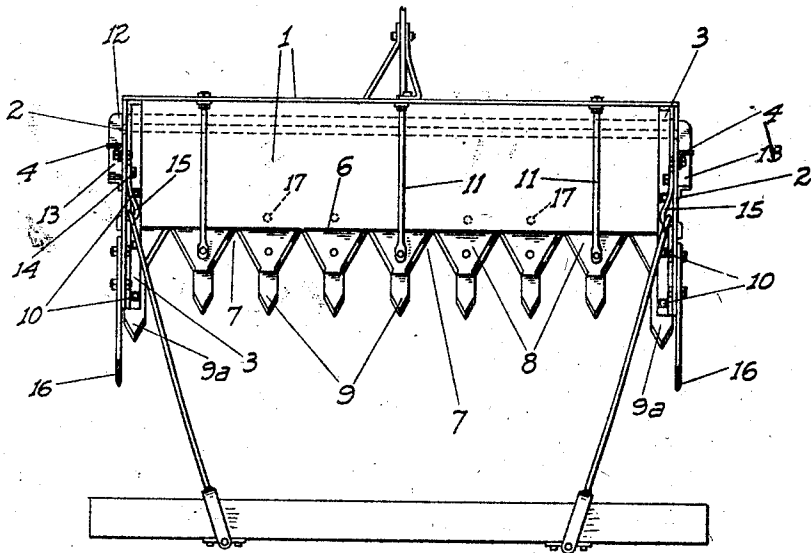


Fig. 3



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TULE AND SOD SCRAPER.

Application filed February 14, 1925. Serial No. 9,319.

To all whom it may concern:

Be it known that I, EMMITT E. BRANNON, a citizen of the United States, residing at Turlock, county of Stanislaus, State of California, have invented certain new and useful Improvements in Tule and Sod Scrapers; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in scrapers, and particularly to scrapers of the well known Fresno type.

The principal object of my invention is to provide a scraper of this general character so constructed that it will efficiently operate in land covered with sod or of that variety known as tule or peat land, in which a mass of intertwined roots or other vegetable matter makes the land very resistant to the penetrative action of a straight bladed implement, as is also the case with sod.

Another object is to provide a scraping appliance for the purpose which may be constructed as an attachment adapted to be readily applied to a standard Fresno scraper by merely removing the usual cutting blade thereof.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Fig. 1 is a side elevation of the scraper with my improved structure applied thereto as an attachment.

Fig. 2 is a sectional elevation of the same. Fig. 3 is a top plan view thereof.

Referring now more particularly to the characters of reference on the drawings, the numeral 1 denotes the curved back and bottom plate of the scraper, 2 the side plates, and 3 the usual connection and reinforcing angles interposed between the side and back plates at the corners thereof. These elements comprise the ordinary scraper bowl.

In common with such scrapers side bars 4,

usually in the form of angle irons, extend upwardly and forwardly from the side plates 2 to support the ground bearing shoes or runners 5 on which the scraper rides when upset for dumping.

In mounting my attachment onto a scraper of this kind the usual scraping blade is removed and this element is therefore not seen on the drawing.

My attachment comprises a plate 6 extending the full width of the scraper under the bottom portion of the plate 1 and extending forwardly thereof. The front edge of the plate 6 is serrated or formed with V-shaped incisions 7 which extend to the forward edge of the plate 1. These incisions form intermediate teeth 8 therebetween whose edges are preferably sharpened somewhat.

Permanently secured to and projecting forwardly from the plate 6 to form a unit therewith are heavy teeth 9, positioned under the teeth 8 and located centrally thereof.

The two end teeth 9^a preferably project ahead of the remainder somewhat. These teeth are made of any suitable substantial material such as bar iron or the like sharpened in a suitable manner at their outer ends.

The plate 6 is detachably secured to the main bowl by means of bolts 10 projecting through the end teeth 9^a, plate 6 and angle members 3.

To brace the front end of the plate 6 against deflection or buckling in a transverse horizontal plane a plurality of angularly disposed brace rods 11 extend from certain ones of the teeth 8 to the back plate 1.

To further brace the rear end of the plate 6 against similar buckling and also removing considerable of the shearing strain from the bolts 10, a stiff bar such as an angle iron 12 is secured to and extends across the rear ends of the teeth 9, which are bent to extend above the ground level for a certain distance. The ends of the bar 12 are bent as at 13 to extend forwardly along the outside of the side plates 2 for a certain distance and are then secured to said side plates by means of the same bolts 14 which are used in connection with the securing of the usual pull-rod eyes 15 to certain side plates.

The runners 5 preferably terminate somewhat further from the ground than is usual,

and if the device is applied to a scraper already made, the runners thereon would be cut off the necessary amount. The horizontal webs of the angle bars 4 are also flattened or cut off to their lower extremities from the lower ends of the runners 5. This forms thin portions, as shown at 16, which offer less resistance to the ground than if said webs are present.

10 This is necessary in working in ground of the character for which this device is intended, since otherwise the flat surface of the members 4 and 5, engaging the ground, would prevent the teeth being tilted at the angle necessary to allow said teeth to readily penetrate the ground with excessive pulling effort.

Though the device has been shown and described as an attachment the scraper may be built complete with the various features permanently incorporated therewith, as unitary elements.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

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

1. A scraping attachment for a scraper of the type having a bowl which includes a bottom plate, and a back plate, comprising a toothed plate mounted in connection with and projecting forwardly from said bottom plate, and braces extending from said toothed plate ahead of the bottom plate to the back plate at an angle to the other plates.

2. A scraping attachment for a scraper of the type having a bowl which includes a bottom plate, side plates, and angle connection members in the corners formed by said side and bottom plates; comprising a cutting and scraping element projecting forwardly from the bottom plate, and means for removably securing said element to the corner angle members.

3. A structure as in claim 2, in which means is provided for bracing said element against horizontal deflection intermediate said angle members.

4. A structure as in claim 2, in which means is provided for bracing said element both at its front and rear ends independently, against transverse deflection intermediate said angle members.

5. A scraping attachment for a scraper of the type having a bowl which includes a bottom plate, side plates, and angle connection members in the corners formed by said side and bottom plates; comprising a cutting and scraping element projecting forwardly from the bottom plate, bolts securing said element to the corner angle members, and means between said element and the scraper for relieving a shearing strain on the bolts with the operation of the scraper.

6. A scraping attachment for a scraper of the type having a bowl which includes a bottom plate, side plates, and angle connection members in the corners formed by said side and bottom plates; comprising a cutting and scraping element projecting forwardly from the bottom plate, bolts securing said element to the corner angle members, a bar extending across and secured to the rear end of the element, and extensions on said bar projecting upwardly and forwardly along the side plates, said extensions being secured to the side plates.

7. A scraping attachment for a scraper of the type having a bowl which includes a bottom plate, comprising a scraping plate under the bottom plate and projecting ahead of the same, transversely spaced bars mounted on the under side of the scraping plate and projecting ahead of the same to form teeth, said bars extending to the rear end of the scraping plate, and a transverse bar across the rear ends of the bars and secured thereto and to the scraping plate, and independently secured to the bowl.

8. A scraping attachment for a scraper of the type having a bowl which includes a bottom plate projecting upwardly toward the rear, comprising a cutting and scraping unit including a plate to lie under the bottom plate and to extend from ahead of the same to a rear termination on the upwardly extending portion of said bottom plate, a transverse bar across the rear end of the unit and secured to the plate thereof, and side extensions on said bar projecting along the sides of the bowl in a forward direction and secured to said sides.

In testimony whereof I affix my signature.

EMMITT E. BRANNON.