

No. 872,439.

PATENTED DEC. 3, 1907.

W. S. LIVENGOOD.  
SCRAPER PAN BIT.

APPLICATION FILED OCT. 23, 1906.

Fig. 1.

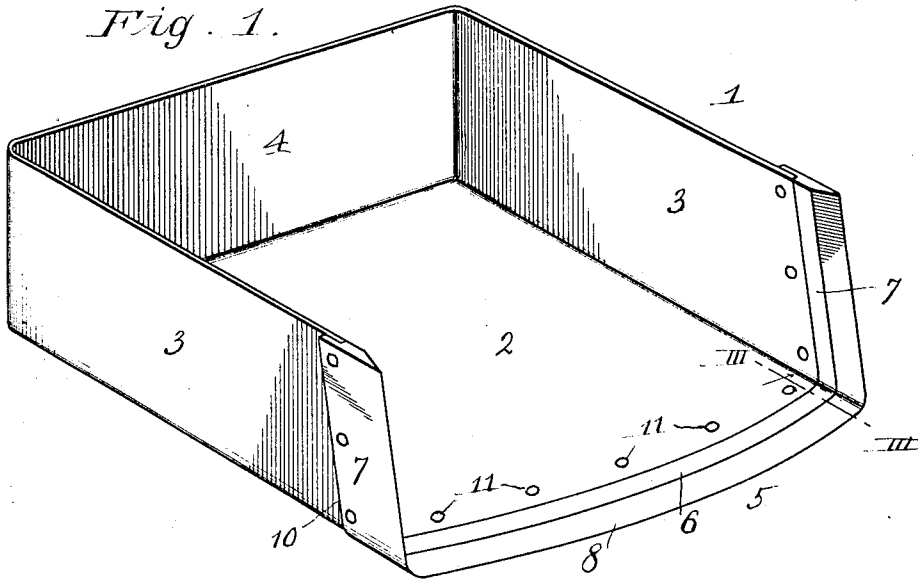


Fig. 2.

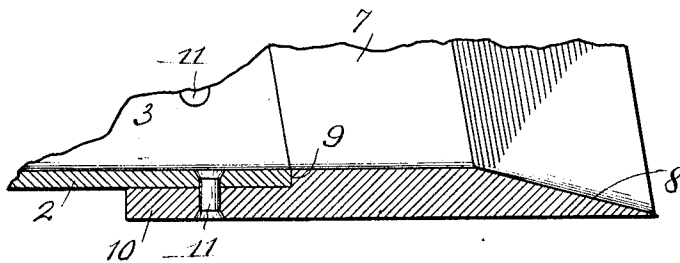
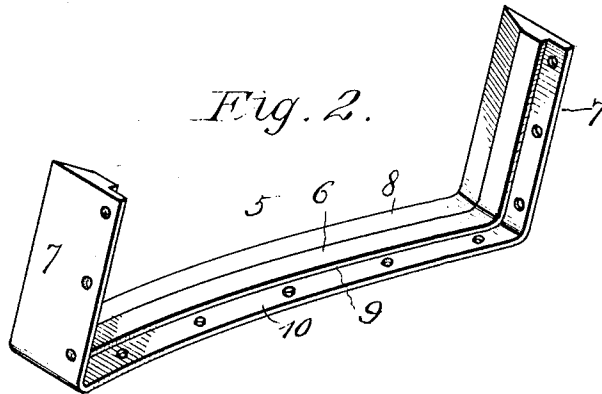


Fig. 3.

Witnesses:

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# UNITED STATES PATENT OFFICE.

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## SCRAPER-PAN BIT.

No. 872,439.

Specification of Letters Patent.

Patented Dec. 3, 1907.

Application filed October 23, 1906. Serial No. 340,219.

*To all whom it may concern:*

Be it known that I, WINFIELD S. LIVENGOOD, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Scraper-Pan Bits, of which the following is a specification.

This invention relates to improvements in bits for scraper-pans; and my object is to provide a device of this character which will protect the front end of the pan from wear; prevent said end from coming into contact with and being bent by the soil; will reinforce the bottom and sides of the pan and hence prevent them from sagging or being drawn out of shape by the strain imposed thereon while loading or carrying heavy loads; that will present an unyielding cutting edge and thus permit the pan to enter hard soil with comparative ease and the least expenditure of horse-power, and which may be removed when requiring resharpening, or replacing with a new bit.

Referring now to the accompanying drawing illustrating the invention: Figure 1 represents a perspective view of a scraper-pan provided with my improved bit. Fig. 2 is a detail perspective view of the bit looking at the rear thereof. Fig. 3 is an enlarged broken section on line III—III of Fig. 1.

1 designates a scraper-pan of ordinary construction and comprising the bottom portion 2, side portion 3, and a back portion 4.

5 designates a scraper bit which is U-shaped in elevation and comprises a horizontal portion 6 curved slightly forward to conform with the curvature of the front edge of the bottom 2, and at its ends two upwardly extending side portions 7, all three portions being beveled on their inner sides to their front edges as at 8 and all three portions also being cut away on their inner faces from their rear edges forward to produce a continuous heel 10 and a continuous shoulder 9 parallel with both edges of the bit.

Shoulder 9 abuts against the front edge of the pan and is of such depth that the inner face of the bit is flush with the inner surface

thereof, so that said edge will not come in contact with the soil and thus become worn or bent thereby.

The heel of the bit extends beneath the bottom and embraces the sides of the pan and thus protects and strengthens the forward portion thereof without reducing its capacity for receiving a full charge.

The bit is preferably constructed from plow steel, and is sufficiently rigid to sustain the bottom and the sides of the pan so that the same will not sag or be drawn out of shape by the strain imposed thereon. The bit is secured to the pan by means of rivets 11 extending through the pan and heel, the ends of which are flush with the inner surface of the pan and the outer surface of the bit, so that they will not retard the passage of the pan through the soil.

When desired the bit may be removed so that it may be sharpened or replaced with a new one by removing the rivets 11.

By providing a scraper-pan with my improved bit the life of the pan will be prolonged, and it may be drawn through hard soil with greater ease than heretofore.

Having thus described my invention, what I claim is:

1. The combination with a scraper pan 1 having the front edge of its bottom portion 2 curved forward; of a bit of one width throughout its length and bent into U-shape, the bit comprising a horizontal portion 6 curved forward to conform with the shape of said bottom, and upwardly extending end portions 7, all said portions being beveled as at 8 on their inner faces to their front edges and being cut away on their inner faces from their rear edges forward to a shoulder 9 which extends parallel with both edges of the bit and is of a depth equal to the thickness of the pan, thereby leaving a heel 10 underlying the bottom and embracing the sides of the pan, and means for securing said heel to the pan.

2. The combination with a scraper pan; of a bit of one width throughout its length and bent into U-shape, the bit comprising a hori-

zontal portion and upwardly extending end  
portions, all said portions being beveled on  
their inner faces to their front edges and be-  
ing cut away on their inner faces from their  
5 rear edges forward to a shoulder which ex-  
tends parallel with both edges of the bit and  
is of a depth equal to the thickness of the  
pan, thereby leaving a heel 10 underlying the  
bottom and embracing the sides of the pan,

and rivets through said heel and the bottom 10  
and sides of the pan.

In testimony whereof I affix my signature,  
in the presence of two witnesses.

WINFIELD S. LIVENGOOD.

Witnesses:

F. G. FISCHER,  
M. COX.