July 17, 1951 L. E. KELLNER 2,561,207

STONE PICKER

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Fig. 1.

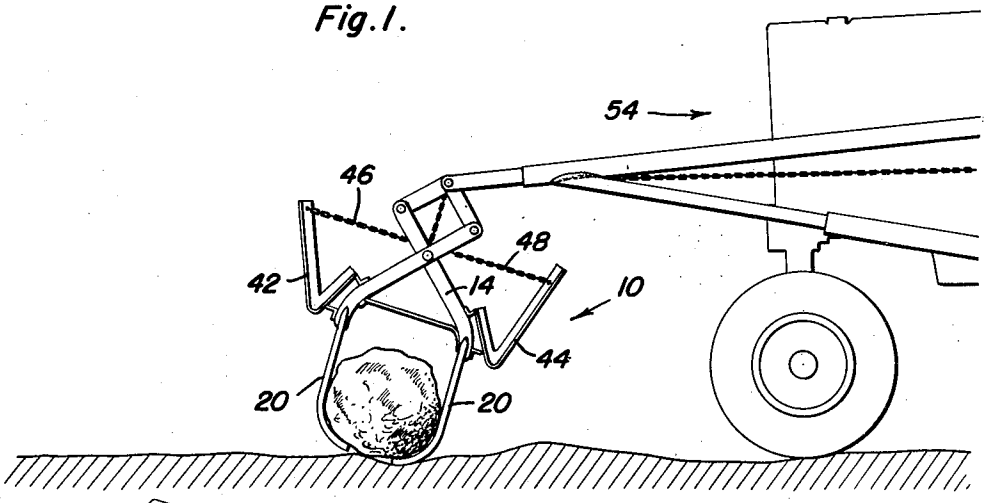
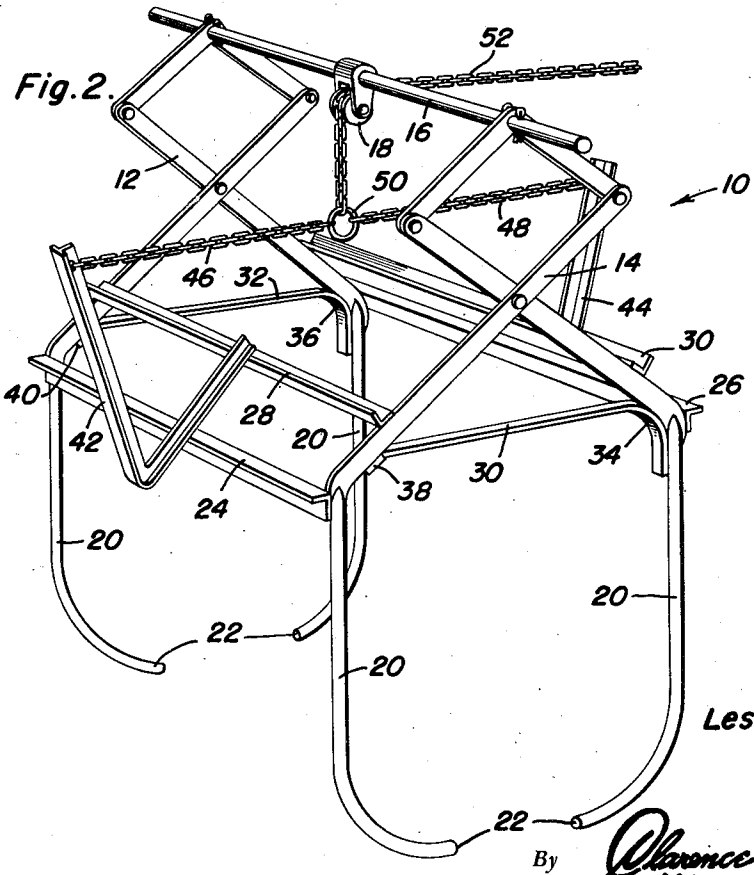


Fig. 2.



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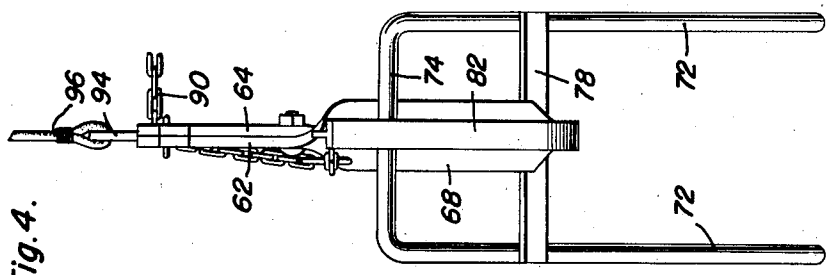


Fig. 4.

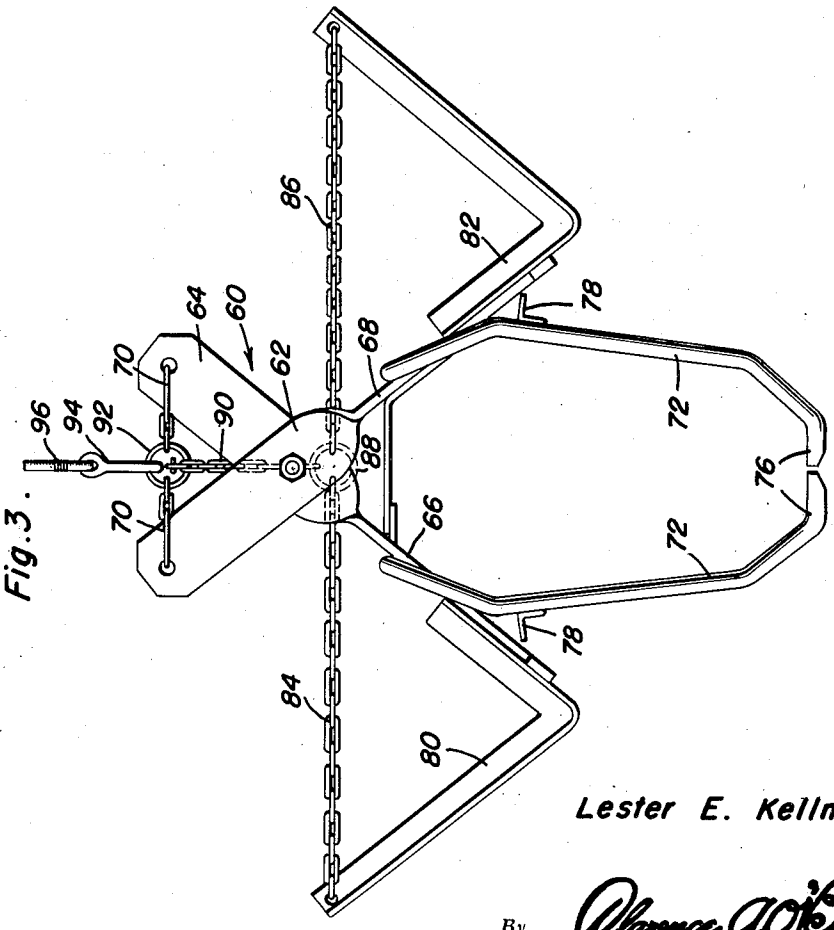


Fig. 3.

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STONE PICKER

Lester E. Kellner, Merrill, Wis.

Application December 28, 1949, Serial No. 135,433

6 Claims. (Cl. 294—119)

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This invention relates to hoisting means and mechanisms and more particularly to a novel device for raising or lifting stones or other heavy objects for the removal thereof to another location.

An object of this invention is to provide an easily controlled grapple for ready use with the hoisting mechanism of a conventional farm implement.

A further object of the invention is to provide an attachment for a conventional farm implement having a hoisting mechanism for ready and easy engagement with a large stone or other object for the lifting and removal of the stone from the surface of tillable land.

Still further objects reside in the provision of two embodiments of stone pickers each of which is strong, durable, highly efficient in operation, simple in construction, easy to manufacture, easily actuated by a conventional hoisting mechanism, simple to operate and quite inexpensive.

The first embodiment of the invention comprises spaced pairs of lazy tongs having lugs secured to the bottom portion thereof for engagement with a stone or other object.

The other embodiment of the invention makes use of only one pair of lazy tongs but employs the concept of a pair of U-shaped members forming opposed pairs of legs for engagement with the stones or the like.

The prior recited objects together with the various ancillary objects of the invention which will become apparent as the following description proceeds, are attained by this device, the preferred embodiments of which have been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a side elevational view showing the first preferred embodiment of the invention as actuated by a hoisting mechanism of a conventional farm implement or machine;

Figure 2 is a perspective view of the embodiment of the stone picker as shown in Figure 1;

Figure 3 is a side elevational view of the second embodiment of the invention; and

Figure 4 is a front elevational view of the second embodiment of the stone picker.

With continuing reference to the accompanying drawings wherein like reference numerals designate similar parts throughout the various views, reference numeral 10 is used to generally indicate the first preferred embodiment of the invention. The stone picker 10 comprises spaced pairs of lazy tongs 12 and 14, the upper ends of which are pivotally connected to a suspension

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member 16 which has a pulley wheel 18 suspended therefrom for a purpose to be henceforth explained.

Bolted or otherwise secured to the bottom ends of the pairs of lazy tongs 12 and 14 are opposed pairs of legs 20 each of which is formed with an arcuate and inwardly extending grappling portions 22 of suitable configuration. Reinforcing and connecting bars 24 and 26 formed from angle iron are welded or otherwise secured to the legs 20. Angle reinforcing connecting bars 28 and 29 are terminally secured to the lazy tongs 12 and 14. Straps 30 and 32 having curvilinear portions 34 and 36, respectively, are welded to one leg of each of the pairs of legs and each are provided with a stop portion 38 and 40 for limiting the motion of the tongs and to prevent them from closing entirely.

A pair of angle iron elbow members 42 and 44 are welded or otherwise secured to the bars 24 and 28 and 26 and 30, respectively. A chain 46 is secured to the elbow member 42 as is a chain 48 secured to the elbow member 44. The chains 46 and 48 are joined by a central ring 50 to which is secured a chain 52 which engages the pulley wheel 18 and is secured to the control mechanism of a farm implement generally designated by the reference numeral 54. The connecting rod 16 is secured to the hoisting mechanism of the implement 54.

In order to operate this mechanism the device need merely be positioned in engaging relationship with the stone. Then, the hoisting mechanism may be raised which will cause the tongs to close and close the grapple portions 22 of the legs 20 to engage about the stone or other item to be lifted. By pulling on the chain 52 thereby releasing the chain 52 the legs 20 may be controlled and these are thus selectively parted or allowed to come almost together.

Referring now to Figures 3 and 4 wherein is shown another form of the invention it will be seen that a pair of tongs 60 is provided consisting of crossed and twisted pivotally connected arms 62, 64, 66 and 68. To the arms 66 and 68 there is welded or otherwise secured pairs of substantially U-shaped members comprising legs 72 and a central connecting portion 74. The lower portions of the legs 72 are bent inwardly toward each other as at 76 to form grappling portions. Angle iron braces 78 are provided to rigidify the structure. Secured to the bottom portion of the arms 66 and 68 are angle iron L-shaped elbow members 80 and 82 to which chains 84 and 86 are connected. A central ring 88 connects the

chains 84 and 86 together and connects links 70 which are attached to the arms 62 and 64 to form the tong structure. Secured to the ring 88 is an additional chain 90 which is secured to a control mechanism on the farm implement. In this form of the invention the suspension member equivalent of the rod 16 comprises a ring 92 to which is attached a shackle 94 which is secured by a cable 96 to the hoisting mechanism of the farm machine, for operation similar to that of the embodiment shown in Figures 1 and 2.

Since from the foregoing the construction and arrangement of these forms of stone picker are readily apparent, further description is believed to be unnecessary.

However, since numerous modifications will readily occur to those skilled in the art after a careful consideration of the foregoing specification and accompanying drawings, it is not intended to limit the invention to the precise embodiments shown and described, but all suitable modifications and equivalents may be resorted to which fall within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A stone picker comprising opposed pairs of lazy tongs, a suspension member pivotally connecting the upper ends of said pairs of lazy tongs in spaced relationship, pairs of grappling legs at the other end of said pairs of lazy tongs, connecting bars terminally rigidly connected to said pairs of lazy tongs, elbow members secured to said connecting bars medially thereof, and means secured to said elbow members supported by said suspension member for selectively actuating said stone picker.

2. A stone picker comprising opposed pairs of lazy tongs, a suspension member pivotally connecting the upper ends of said pairs of lazy tongs in spaced relationship, pairs of grappling legs at the other end of said pairs of lazy tongs, connecting bars terminally rigidly connected to said pairs of lazy tongs and extending therebetween, elbow members secured to said connecting bars medially thereof, and means secured to said elbow members supported by said suspension member for selectively actuating said stone picker, said means comprising a ring, means connecting said ring to each of said elbow members, and means connecting said ring to a lifting mechanism.

3. A stone picker comprising opposed pairs of lazy tongs, a suspension member pivotally connecting the upper ends of said pairs of lazy tongs in spaced relationship, pairs of grappling legs at the other end of said pairs of lazy tongs, connecting bars terminally rigidly connected to said pairs of lazy tongs, elbow members secured to said connecting bars medially thereof, and means secured to said elbow members supported by said suspension member for selectively actuating said stone picker, said means comprising a ring, a chain connecting said ring to each of said elbow members, and a chain connecting said ring to a lifting mechanism.

4. A stone picker comprising a pair of tongs, a suspension member secured to the upper end of said pair of tongs, leg means at the other end of said pair of tongs, said leg means comprising substantially U-shaped members having two pairs of downwardly extending legs and a central connecting member, said central connecting member being secured to said pair of tongs, connecting bars terminally rigidly connected to said pair of tongs, elbow members secured to said connecting bars, and means secured to said elbow members supported by said suspension member for selectively actuating said stone picker.

5. A stone picker comprising a pair of tongs, a suspension member secured to the upper end of said pair of tongs, leg means at the other end of said pair of tongs said leg means comprising substantially U-shaped members having two pairs of downwardly extending legs and a central connecting member, said central connecting member being secured to said pair of tongs, connecting bars terminally rigidly connected to said pair of tongs, elbow members secured to said connecting bars, and means secured to said elbow members supported by said suspension member for selectively actuating said stone picker, said means comprising a ring, means connecting said ring to each of said elbow members, and means connecting said ring to a lifting mechanism.

6. A stone picker comprising a pair of tongs, a suspension member secured to the upper end of said pair of tongs, leg means at the other end of said pair of tongs, said leg means comprising substantially U-shaped members having two pairs of downwardly extending legs and a central connecting member, said central connecting member being secured to said pair of tongs, connecting bars terminally rigidly connected to said pair of tongs, elbow members secured to said connecting bars, and means secured to said elbow members supported by said suspension member for selectively actuating said stone picker, said means comprising a ring, a chain connecting said ring to each of said elbow members, and a chain connecting said ring to a lifting mechanism.

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