Sept. 8, 1925. 1,552,715

G. C. LUTZ

BEET ELEVATOR AND LOADER

Filed Jan. 12, 1925

Fig. 1.

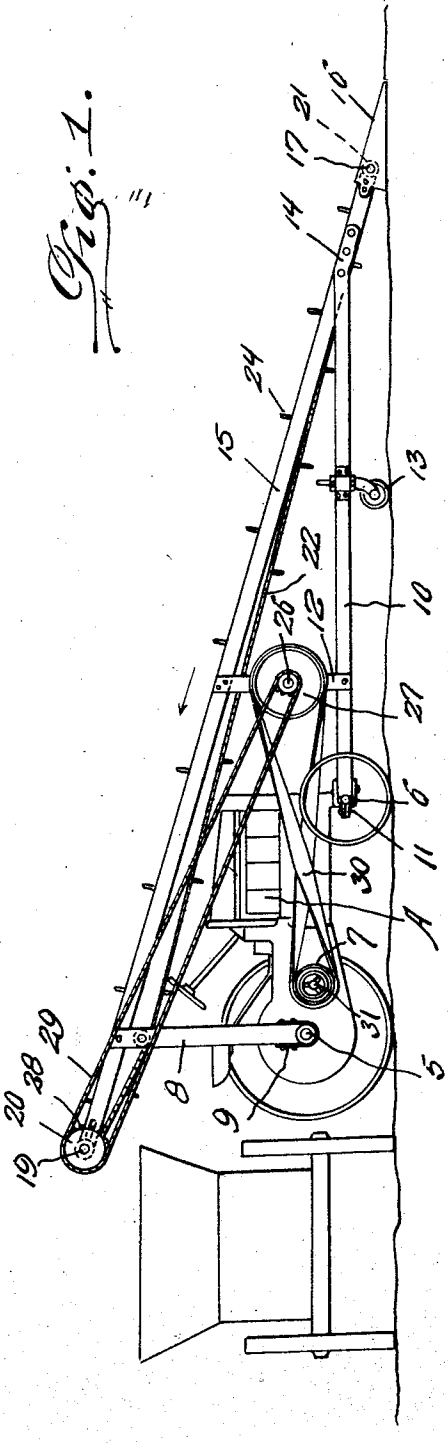
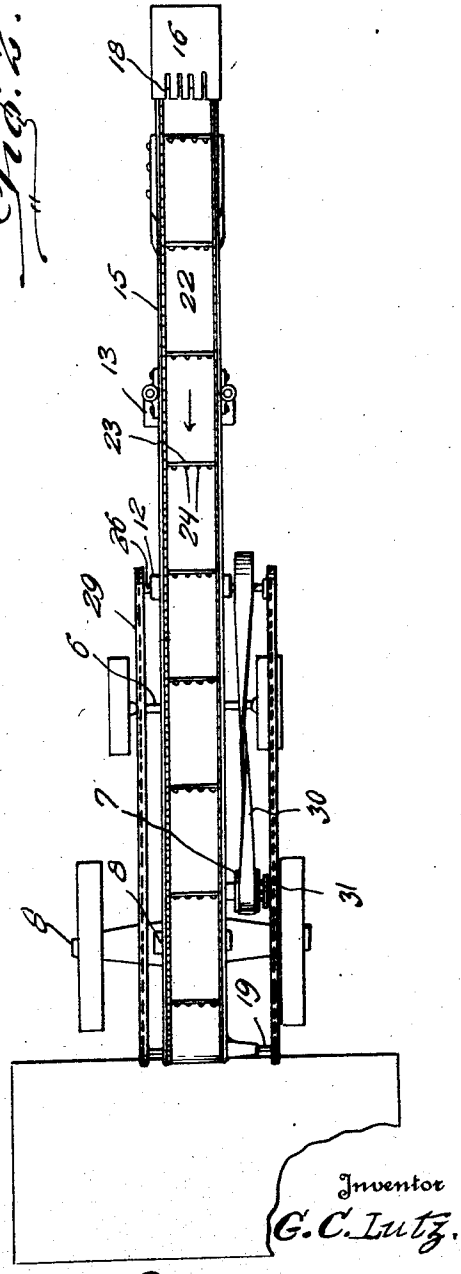


Fig. 2.



Inventor
G. C. Lutz.

By Marion A. Dixon
Attorney

Patented Sept. 8, 1925. 1,552,715

UNITED STATES PATENT OFFICE.

GUILES C. LUTZ, OF ATWOOD, COLORADO.

BEET ELEVATOR AND LOADER.

Application filed January 12, 1925. Serial No. 1,909.

To all whom it may concern:

Be it known that I, GUILES C. LUTZ, a citizen of the United States, residing at Atwood, in the county of Logan and State of Colorado, have invented certain new and useful Improvements in a Beet Elevator and Loader, of which the following is a specification.

The present invention relates to a beet loader and elevator of a portable nature having for its principal object to provide a simple and substantial elevator particularly constructed and designed to permit it to be readily mounted on a tractor of standard construction.

Another very important object of the invention is to provide an agricultural implement of this nature, which is able to push under the pile of beets, keep clear of the ground, handle the beets with no damage to them, load the same into wagons, move speedily and handily about and through the pile of beets, one which is capable of being operated by one man to do the work of a large number of men.

Another important object of the invention is to provide an implement of this nature, which is capable of being quickly and easily assembled and disassembled, one which is thoroughly reliable in operation, strong, durable, inexpensive to construct and operate, not liable to readily get out of order, and otherwise well adapted for the purpose for which it is designed.

With the above and numerous other objects in view, as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts that will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is a side elevation of the implement embodying the features of my invention, showing the same assembled on a Fordson tractor, and

Figure 2 is a top plan view thereof.

Referring to the drawing in detail, it will be seen that A designates a tractor of conventional type, such as the well-known Fordson tractor, and includes among other conventional elements, a rear axle 5, a front axle 6, and a pulley 7, which will be mentioned hereinafter, in conjunction with the description of the improved implement.

A pair of standards 8, formed of substantial material, such as steel, are attached at their bottom ends by means of bands 9 or the like, in order to extend vertically. Two beams 10 extend horizontally in parallel spaced relation to each other, and have their rear ends attached to the axle 6, by means of suitable clamps 11. Standards 12 rise from the beams 10, forwardly of the axle 6, and caster like wheels 13 are swivelly mounted on the rail 10, forwardly of the standards 12, and intermediate the ends of the beams. The forward ends of the beams 10 are bent to incline downwardly and forwardly. A frame consisting of side rails 15 support the conveyor mechanism properly. These side rails 15 are attached to the forward ends 14 of the beams 10, and to the upper ends of the standards 12 and 8, extending forwardly of the ends 14 and rearwardly of the standards 8. A blade or shoe 16 is pivotally mounted, at 17, on the forward end of the rails 15, and its rear end is provided with a plurality of slots 18.

A shaft 19 is journaled in the upper or rear ends of the side rails 15 as is a shaft, also indicated by numeral 17. A relatively long roller 20 is mounted on and to rotate with shaft 19, and a roller 21 is mounted on shaft 17. A conveyor belt 22 is trained over these rollers 20 and 21, between the side rails 15, and has cross cleats 23 arranged thereon, in spaced relation to each other, which cleats are provided with projections 24, for which are provided the aforementioned slots 18. A shaft 26 is journaled between the standards 12, intermediate their ends, and has mounted on its ends sprockets, and on an intermediate portion on the outside of one side rail 15, a pulley 27. Sprockets 28 are mounted on the ends of shaft 19, and chains 29 are trained thereover, and also over the sprockets on the ends of shaft 26. The belt 30 is trained over pulley 7 and pulley 27. The pulley 7 has incorporated therein a suitable clutch mechanism 31, of conventional construction, so that the rotation of the pulley 7 may be controlled, as desired. When this pulley 7 is rotated, the shaft 26 is rotated, through the intermediacy of the belt 30 and pulley 27. The rotation of this shaft 26 causes the belt to travel through the intermediacy of the chain 29, sprockets 28, and roller 20.

From the above description, it will be seen

that the implement may be readily assembled and disassembled in relation to the tractor, and that it consists of very simple parts, which will, nevertheless, provide a very strong and durable structure. The purpose of this elevator is primarily, to load sugar beets which have been stored at the various beet dumps during the beet season. These beets must be loaded in wagons and hauled onto the dump to load onto the railroad cars. The beets, of course, must be handled without serious damage to them, and heretofore this work has been done almost exclusively by hand power, utilizing forks with blocked tines. It is customary to have the beets in piles of from eight to nine beets high and the present apparatus has been designed so as to be capable of pushing under the pile, without danger of digging into the ground, because of the weight of the beet pile. The apparatus is also capable of being moved speedily and handily around and through the pile, so as to elevate the beets quickly into the wagon.

It will be apparent from the above, that this device is able to obtain all of the advantages enumerated as desirable in the statement of the invention, and the above description, and that numerous changes in the details of construction, in the materials, and in the combination and arrangement of parts may be resorted to, without departing from the spirit or scope of the appended claim, or sacrificing any of the advantages.

Having thus described my invention, what I claim as new is:

In combination with a vehicle including a front axle, a rear axle, and a pulley, a pair of beams projecting forwardly from the front axle horizontally, a pair of relatively long standards rising from the rear axle, a relatively short pair of standards rising from the beams, an elevator mechanism supported on the standards, a shaft journaled across the relatively short standards and having sprockets at its ends, sprockets on the elevator mechanism, chains trained over the sprockets, a pulley on the shaft, and a belt trained over the two pulleys.

In testimony whereof I affix my signature.

GUILES C. LUTZ.