

[54] **ADAPTER APPARATUS FOR TRACTOR**  
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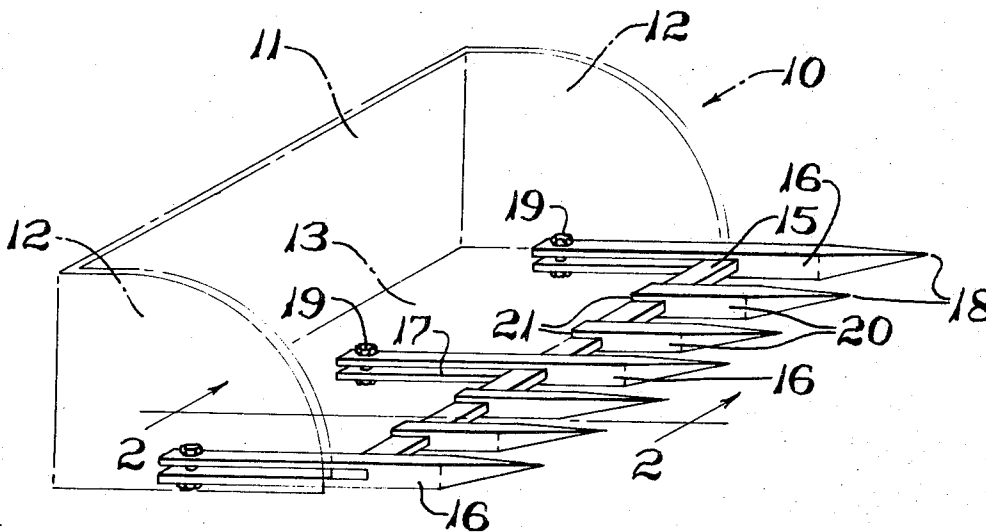
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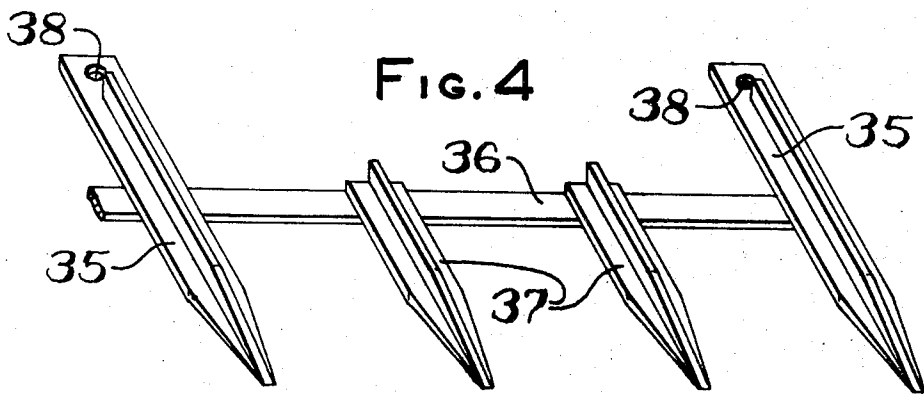
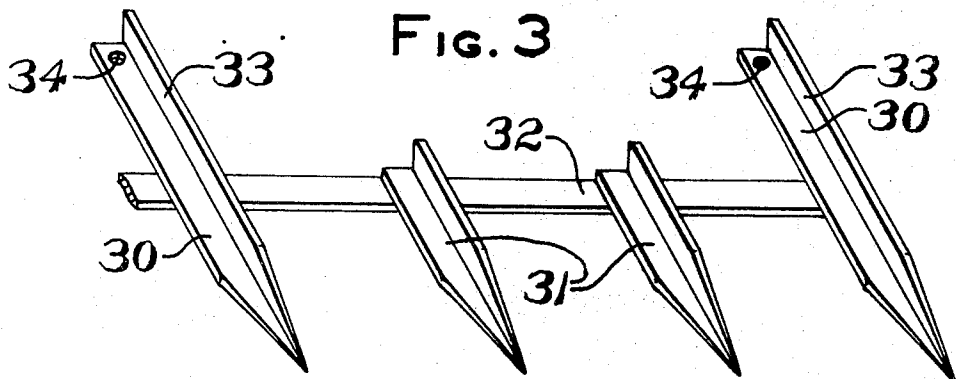
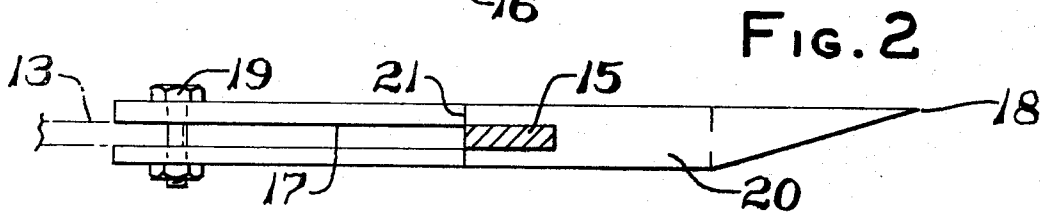
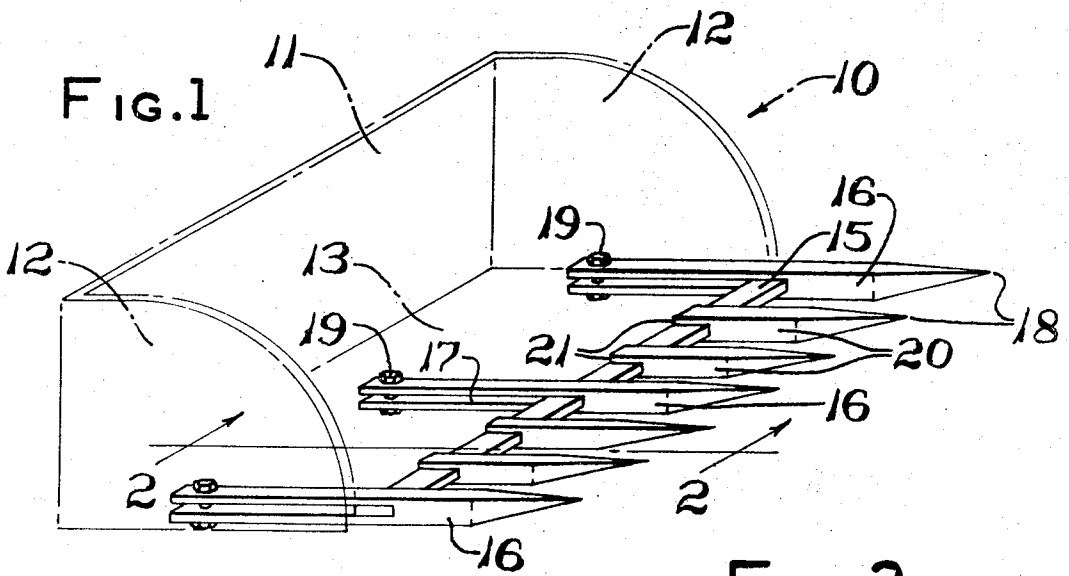
[57] **ABSTRACT**

An adapter apparatus for the conventional bucket of a tractor or high lift which converts the conventional bucket thereof to a special purpose bucket having a plurality of prongs which handle loose barnyard fertilizer or hay.

**3 Claims, 4 Drawing Figures**

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## ADAPTER APPARATUS FOR TRACTOR

## BACKGROUND OF THE INVENTION

This invention relates to an adapter apparatus for use with a high lift bucket and more particularly to an adapter apparatus which converts the conventional bucket of a high lift or the bucket of the usual farm tractor to do a specialized job for lifting and loading loose materials such as barnyard fertilizer or hay.

In the use of high lifts and farm tractors for conventional purpose work, the design has been such as to emphasize utility and applicability; however, it has become the practice to use these devices for as many odd jobs as possible to enhance their usefulness. In order to provide greater adaptability, manufacturers of high lifts and farm tractors have designed special use buckets which require the removal of one bucket and the mounting of the special purpose bucket. After such special use, it is necessary to again reverse buckets, which requires time, energy, and the expense of maintaining at least two buckets and their storage. The changing of the buckets is not an easy task. One special bucket which manufacturers have provided is one with long prongs which are useful in the handling of loose materials such as barnyard fertilizer. In the case of such loose materials, the conventional bucket is ineffective to pick up loose materials since the straw throughout interferes with its effective pick-up by the straight edges of the bucket. The weight of such loose material is sufficiently light that an ordinary bucket just pushes it and cannot effectively pick it up.

## SUMMARY OF THE INVENTION

The present invention is directed to an adapter apparatus that is inexpensive to fabricate yet rapidly converts the conventional bucket of a farm tractor or high lift to a special purpose bucket. The adapter comprises a plate member that is conveniently connected to the conventional bucket, which plate member has a plurality of spaced prongs which extend outwardly away from the bucket when the plate member is firmly secured to the edge of the bucket.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is an isometric view of the bucket adapter apparatus of a preferred embodiment of the invention, with the bucket shown in dot and dash lines;

FIG. 2 is a cross-sectional view of the bucket adapter apparatus taken on lines 2—2 of FIG. 1;

FIG. 3 illustrates a modification of the adapter apparatus;

FIG. 4 illustrates a further modification of the adapter apparatus.

## DETAILED DESCRIPTION

Referring now to the drawings, wherein like reference characters designate like or corresponding parts throughout the several views, there is shown in FIG. 1 a conventional bucket 10 of a farm tractor or high lift in phantom lines having a rear wall 11, side walls 12 and a bottom wall 13. Such bucket 10 is of conventional shape and can be removably mounted to the lever members of a tractor which manipulates the bucket in its operation.

The adapter apparatus which can be attached to such conventional bucket includes a flat plate member 15

which extends the full front end of the bucket and is adapted to abuttingly engage the front edge of the bucket 10.

Secured to the plate member 15 as by welding are a plurality of spaced prongs 16. FIG. 1 discloses three prongs 16, although more or less of these prongs may be used. The rear portion of each prong 16 is bifurcated, providing a slot 17 which facilitates the attachment and support of the adapter to the bottom wall 13 of the bucket. The rearward portion of each prong 16 has a bore which is in alignment with a bore on the bottom wall 13 of the bucket, such that a threaded bolt or stud 19 extending therethrough facilitates the securing of these parts together. The forward portion of each prong 16 tapers to a point 18. Suitably secured to the plate member 15 are a plurality of additional prongs 20, which prongs 20 are similar in all respects to prongs 16 except that their rearwardly disposed bifurcated portion extends rearwardly sufficiently to have their rear edges 21 flush with the rearwardly most edge of the plate member 15. The forwardmost portion of prongs 20 terminate into a point 18 as prongs 16. Such prongs 20 may have their bifurcated portion extend rearwardly sufficiently to engage the upper and lower surface of bottom wall 13 to provide additional support to the bucket adapter apparatus.

In the use of the adapter apparatus, assuming the conventional bucket is mounted on the tractor, an operator slips the bifurcated prongs onto the bottom wall 13 of the bucket until the plate member 15 abuttingly engages the lip or front edge of the bucket 10. Bolts 19 or other suitable connecting means are used to interconnect the adapter apparatus with the bucket. The prongs 20 and 16, as an example, may extend from 10 to 18 inches beyond the plate member 15 outwardly away therefrom.

A modification of the bucket adapter apparatus is to have the prongs V- or L-shaped in cross section or an angle iron as shown in FIG. 3 with the one wall portion 33 extending vertically upwardly and normal to the other wall portion of the prong. Herein the long prongs 30 and the short prongs 31 can be welded or otherwise secured to the plate member 32 with the one vertically extending wall 33 of the end prongs 30 lying in abutting contact with the side wall 12 of the bucket 10 such that this combination cooperates to penetrate cleanly into the mass of material being loaded, cutting the straw which thereby facilitates the loading action. The advantage of the long prongs 30, 31, 16 and 20 is that they can triple the load worked over a conventional bucket if such bucket were able to load the loose material thereon. The prongs 30 have suitable bores 34 for registering with similar bores on the bottom wall of a bucket and for receiving a bolt or stud to interconnect the tractor bucket adapter to the bucket. A further modification is shown in FIG. 4 wherein the longitudinally extending prongs 35 are T-shaped in cross section and suitably connected to the plate member 36. In addition to the plurality of elongated members 35, a plurality of laterally spaced prongs 37 are similarly suitably connected to the plate member 36. The elongated prongs 35 have bores 38 suitably drilled into the rearward portion thereof to provide means for interconnecting such adapter to the conventional bucket as depicted in FIG. 1.

Various modifications are contemplated and may obviously be resorted to by those skilled in the art without

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departing from the described invention, as hereinafter defined by the appended claims.

I claim:

1. An adapter apparatus for use with a conventional bucket having side walls, back wall and a bottom wall presenting an open end bucket; comprising an elongated thin support member with spaced end portions and a longitudinally extending edge portion with said edge portion being positioned for abutting contact to the front edge of the bottom wall of a bucket; a plurality of prong members secured to said support member and extending outwardly away from the bottom wall; said prong members lying in spaced parallel relationship with the respective outermost prong members lying at the respective end portions of said support member and having their rearwardly disposed side portions in abutting contact with said side walls of the bucket; certain ones of said prong members extending rearwardly from said support member and having portions that lie in abutting contact with the bottom wall of said bucket; the remaining ones of said prong members having their rearwardlymost portion secure to said

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elongated support member; and means for connecting said certain ones of said prong members to the bottom wall of a bucket.

2. An adapter apparatus as set forth in claim 1 wherein said rearwardly extending portions of said certain ones of said prongs are bifurcated for contacting the upper and lower surfaces of the bottom wall.

3. An adapter apparatus for use with the conventional bucket of a tractor comprising an elongated narrow support member having a longitudinally extending planar surface for abutting contact to the edge of the bucket, said support member having a plurality of prongs extending at right angles outwardly therefrom, said outwardly extending prongs being elongated members tapering to a point, certain ones of said prongs having bifurcated portions extending rearwardly from said support member in a direction opposite to said outwardly extending direction, and connecting means on said rearwardly extending bifurcated portions of said certain ones of said prongs for interconnecting said certain prongs to the bucket.

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