CLAIMS

1. A container handling apparatus adapted to engage with and lift a container, ~~said~~ the container including a lip, the apparatus comprising:

a main arm configured to be actuated up and down a first axis in a lowering or raising component of movement;

a locking arm connected to ~~said~~ the main arm via a pivot point, and ~~adapted~~ configured to rotate around a rotational axis about ~~said~~ the pivot point, to and from a first extended position away from the main arm, the locking arm including a distal tip portion configured to contact/engage the lip of an adjacently placed container; and

biasing means configured ~~arranged~~ to urge the locking arm around the rotational axis to ~~said~~ the first extended position.

2. The~~An~~ apparatus as claimed in claim 1 where~~in~~ ~~said~~ the first axis is substantially vertical.

3. The~~An~~ apparatus as claimed in claim 1 or 2 wherein ~~said~~ the rotational axis is substantially perpendicular to ~~said~~ the first axis.

4. The~~An~~ apparatus as claimed in any of claim~~s~~ 1 to 3 wherein the distal tip portion of ~~said~~ the locking arm is above ~~said~~ the pivot point.

5. The~~An~~ apparatus as claimed in any of claims 1 to 4 wherein ~~said~~ the biasing means comprises spring means.

6. The~~An~~ apparatus as claimed ~~o~~in any of claim~~s~~ 1 to 5 wherein ~~said~~ the biasing means comprises a tension spring whose ends connect~~s~~ to a point on the main arm and a point on the locking~~side~~ arm.

7. The~~An~~ apparatus as claimed in any of claims 1 to 6 including a guide rail or track adapted to guide ~~said~~ the main arm up and down along ~~said~~ the first axis in the lowering or raising component of movement.

8. The~~An~~ apparatus as claimed in any of claims 1 to 7 configured such that on downward actuation of the main arm, with the locking arm in its extended first position, causes consequential downward movement of the distal tip portion of the locking arm so as to contact/engage the lip ~~portion~~ of an adjacently placed container, causing the locking arm to be pushed by ~~said~~ the lip around the rotation axis towards ~~said~~ the main arm.

9. The~~An~~ apparatus as claimed in claim 8, configured such that further downward movement of ~~said~~ the main arm causes the distal tip portion of ~~said~~ the locking arm to brush against the lip until a point is reached where the distal tip portion of the locking arm is urged by the biasing means back away from the main arm to a position underneath the lip.

10. The~~An~~ apparatus as claimed in claim 9 wherein ~~said~~ the position underneath the lip is an engagement/locking position where the distal tip portion of the locking arm contacts the underside of the lip.

11. The~~An~~ apparatus as claimed in claim 9 further configured such that subsequent upward movement of the main arm causes the distal tip portion of the locking arm to move upwards to contact the bottom of the lip in an engagement/locking position.

12. The~~An~~ apparatus as claimed in any of claims 9 to 11 configured such that subsequent or further upward movement of the main arm causes consequential upward movement of the distal tip portion of the locking arm in the locking position so as to raise the container.

13. The~~An~~ apparatus as claimed in any of claims 10 to 12 wherein the distal tip portion of the locking arm and/or the lip of the container are so formed such that in ~~said~~ the locking position, the distal tip portion of ~~said~~ the locking~~side~~ arm is wedged under the lip.

14. The~~An~~ apparatus as claimed in any of claims 1 to 13 further configured such that the main arm is configured to be rotatable about a second rotational axis in an emptying component of movement, ~~said~~ the second rotational axis substantially perpendicular to ~~said~~ the first axis.

15. The~~An~~ apparatus as claimed in any of claims 1 to 14 where ~~said~~ the main arm includes a support portion or support arm extending therefrom and ~~adapted~~ configured to envelop the top rim of an adjacently placed container when ~~said~~ the main arm is lowered.

16. The~~An~~ apparatus as claimed in any of claims 1 to 15 wherein ~~said~~ the locking~~side~~ arm includes a manual lever.

17. The apparatus as claimed in any of claims 1 to 16 wherein the container is an open topped rubbish chute bin.

1~~7~~8. A container handling apparatus ~~adapted~~ configured to engage with and lift a container, ~~said~~ the container including a lip, the apparatus comprising:

a main arm configured to be lowered and raised;

a locking arm connected to ~~said~~ the main arm via a pivot point, and configured ~~adapted~~ to rotate around a rotational axis about ~~said~~ the pivot point, to and from a first extended position away from the main arm; and

biasing means configured ~~arranged~~ to urge the locking arm around the rotational axis to ~~said~~ the first extended position.

19. A container handling apparatus configured to engage with and lift a container, the container including a lip, the apparatus comprising:

a main arm configured to be actuated up and down a first axis;

a locking arm connected to the main arm via a pivot point, and configured to rotate around a rotational axis about the pivot point, to and from a first extended position away from the main arm; and

biasing means configured to urge the locking arm around the rotational axis to the first extended position;

wherein downward actuation of the main arm, with the locking arm in its extended first position, causes consequential downward movement of distal tip portion of the locking arm so as to contact/engage the lip of an adjacently placed container, causing the locking arm to be pushed by the lip around the rotation axis towards the main arm.

~~1~~208. A truck including a truck receptacle located thereon and an apparatus as claimed in any of claims 1 to 1~~7~~9 adjacent to ~~said~~ the receptacle, wherein the container is configured to be emptied into the receptacle.

21~~19~~. A method of lifting a container, ~~said~~ the container including a lip, comprising ~~the steps of~~:

~~a)~~ placing ~~an~~ the apparatus according to any of claims 1 to ~~17~~ 19 and/or ~~said~~ the container adjacent to each other;~~,~~

~~b)~~ actuating ~~said~~ the main arm downwards such the distal tip portion of ~~said~~ the locking arm moves downwards to contact ~~said~~ the lip, and such that further movement of ~~said~~ the main arm downwards causes the locking arm to be pushed against ~~said~~ the biasing means by ~~said~~ the lip, to a position away from ~~said~~ the extended position;~~,~~

~~c)~~ continuing to actuate ~~said~~ the main arm downwards to point where the distal tip portion of the locking arm is urged by ~~said~~ the biasing means to a position underneath ~~said~~ the lip; and

~~d) subsequently~~ actuating ~~said~~ the main arm upwards.

22~~0~~. The~~A~~ method as claimed in claim ~~19~~ 21 wherein ~~said~~ the position underneath ~~said~~ the lip is a locking/engagement position.

2~~1~~3. The~~A~~ method as claimed in claim ~~19~~ 21 wherein the actuating the main arm upwards ~~in step d) consequential movement upwards of the tip of the locking arm~~ causes the locking arm ~~it~~ to contact the underside of the lip in a locking/engagement position.

2~~2~~4. The~~A~~ method as claimed in any of claims ~~19~~ 21 to ~~21~~ 23 wherein the actuating the main arm upwards ~~in step d) continued upward movement of said main arm~~ causes the container to be lifted via contact of the distal tip portion of ~~said~~ the locking arm and the underside of ~~said~~ the lip.

25. The method as claimed in any of claims 21 to 24 further comprising rotating the main arm about a second rotational axis, after actuating the main arm upwards, to empty the container, the second rotational axis substantially perpendicular to the first axis.