CLAIMS

1. A container handling apparatus adapted 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 in a lowering or raising component of movement;

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, the locking arm including a distal tip portion configured to contact/engage the lip of an adjacently placed container; and

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

2. The apparatus as claimed in claim 1 wherein the first axis is substantially vertical.

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

4. The apparatus as claimed in any of claims 1 to 3 wherein the distal tip portion of the locking arm is above the pivot point.

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

6. The apparatus as claimed in any of claims 1 to 5 wherein the biasing means comprises a tension spring whose ends connect to a point on the main arm and a point on the locking arm.

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

8. The apparatus as claimed in claim 7, configured such that further downward movement of the main arm causes the distal tip portion of 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.

9. The apparatus as claimed in claim 8 wherein 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.

10. The apparatus as claimed in claim 8 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.

11. The apparatus as claimed in any of claims 8 to 10 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.

12. The apparatus as claimed in any of claims 9 to 11 wherein the distal tip portion of the locking arm and/or the lip of the container are so formed such that in the locking position, the distal tip portion of the locking arm is wedged under the lip.

13. The apparatus as claimed in any of claims 1 to 12 further configured such that the main arm is configured to be rotatable about a second rotational axis in an emptying component of movement, the second rotational axis substantially perpendicular to the first axis.

14. The apparatus as claimed in any of claims 1 to 13 where the main arm includes a support portion or support arm extending therefrom and configured to

envelop the top rim of an adjacently placed container when the main arm is lowered.

15. The apparatus as claimed in any of claims 1 to 14 wherein the locking arm includes a manual lever.

16. The apparatus as claimed in any of claims 1 to 15 wherein the container is an open topped rubbish chute bin.

17. 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 lowered and raised;

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.

18. 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.

19. The apparatus as claimed in claim 18 wherein the main arm is configured to be actuated up and down the first axis in a lowering or raising component of movement; and the locking arm including a distal tip portion configured to contact/engage the lip of an adjacently placed container.

20. A truck including a truck receptacle located thereon and an apparatus as claimed in any of claims 1 to 18 adjacent to the receptacle, wherein the container is configured to be emptied into the receptacle.

21. A method of lifting a container, the container including a lip, comprising:

placing the apparatus according to any of claims 1 to 18 and/or the container adjacent to each other;

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

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

actuating the main arm upwards.

22. The method as claimed in claim 21 wherein the position underneath the lip is a locking/engagement position.

23. The method as claimed in claim 21 wherein the actuating the main arm upwards causes the locking arm to contact the underside of the lip in a locking/engagement position.

24. The method as claimed in any of claims 21 to 23 wherein the actuating the main arm upwards causes the container to be lifted via contact of the distal tip portion of the locking arm and the underside of 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.