THE CLAIMS:

1. A hand trolley including a main body and a lifting platform movable relative to the main body for applying a lifting force to a load by a foot force applied by a foot of an operator.

2. The hand trolley of claim 1, including at least one member engageable by the foot and a lifting mechanism, the member being configured to receive the foot force applied in a downward direction, and the lifting mechanism being mechanically associated with the member and the lifting platform to apply the lifting force to the lifting platform based on the foot force being applied to the member.

3. The hand trolley of claim 1 or 2, including a hold-release assembly to hold the lifting platform in a raised condition and to release the lifting platform from the raised condition.

4. The hand trolley of claim 3, wherein the hold-release assembly is configured hold the lifting platform at a plurality of holding heights.

5. The hand trolley of claim 3 or 4, wherein the hold-release assembly includes one or more rods that move to a holding condition to hold the lifting platform in the raised condition.

6. The hand trolley of any one of claims 3–5, wherein the hold-release assembly includes one or more releasing mechanisms for operation by the operator to release the lifting platform.

7. The hand trolley of any one of claims 1–6, including a lifting apparatus configured to receive the foot force in a plurality of stages for applying the lifting force.

8. The hand trolley of claim 7, wherein the lifting apparatus includes:

a lower member for receiving a first portion of the foot force in a first stage; and

an upper member for receiving a second portion of the foot force in a subsequent second stage.

9. The hand trolley of claim 8, including a contractible link between the lower member and the upper member that defines a maximum separation of the upper member and the lower member.

10. The hand trolley of claim 9, wherein the contractible link includes at least one inner member, and at least one housing, the housing configured to slide over the inner member to contract the contractible link.

11. The hand trolley of claim 8, wherein the lower member is connected to the upper member such that applying the downward force to the lower member can apply the lifting force, and applying the downward force to the upper member can displace the upper member downward relative to the lower member and apply the lifting force.

12. The hand trolley of claim 11, wherein the lower member is connected to the upper member to via a contractible link to apply the lifting force.

13. The hand trolley of any one of claims 1–12, including at least one axle connected to the main body defining a rotational axis of the hand trolley, wherein the foot force is applied on the same side of the rotational axis as the lifting platform such that the foot force and a weight of the load act in the same direction around the rotational axis.

14. The hand trolley of any one of claims 1–13, including: at least one pulley; and a line in tension around the pulley to apply the lifting force based on the applied foot force.

15. The hand trolley of any one of claims 1–14, including at least one handle configured for the operator to pull up on to apply the foot force.

16. The hand trolley of any one of claims 1–15, including at least one foot platform configured to receive the foot of the operator to apply the foot force.

17. The hand trolley of claim 16, wherein the foot platform includes a safety guard between the foot platform and moving parts of the hand trolley.

18. The hand trolley of any one of claims 1–17, including an extension member connected to the lifting platform for carrying the load to and from the lifting platform.

19. The hand trolley of any one of claims 1–18, including a carrying tray adjacent the lifting platform for carrying the load when moving the hand trolley.

20. The hand trolley of any one of claims 1–19, wherein the lifting platform moves a distance substantially equal to a distance moved by the foot while applying the foot force.

21. The hand trolley of any one of claims 1–20, wherein the lifting force and the foot force have substantially the same magnitude.

22. A method of operating a hand trolley, including:
applying a downward foot force by a foot to the hand trolley;
converting the downward foot force into a lifting force; and
applying the lifting force to a lifting platform of the hand trolley.

23. The method of claim 22, including:
applying the downward foot force in a plurality of stages; and
applying the lifting force in a corresponding plurality of stages.

24. The method of claim 22 or 23, including moving a foot-engageable member by a selected distance with the foot, and moving the lifting platform by a corresponding distance.

25. The method of any one of claims 22–24, wherein the foot force and the lifting force have substantially the same magnitude.

26. The method of any one of claims 22–25, including applying the foot force on a same side of a rotational axis of at least one axle of the hand trolley as the lifting platform, such that the foot force and a weight of the lifting platform act in the same direction around the rotational axis.

THE CLAIMS:

1. A hand trolley including a main body and a lifting platform movable relative to the main body for applying a lifting force to a load by a foot force applied by a foot of an operator, including a hold-release assembly to hold the lifting platform in a raised condition and to release the lifting platform from the raised condition, wherein the hold-release assembly includes one or more rods that move to a holding condition to hold the lifting platform in the raised condition.

2. A hand trolley including a main body and a lifting platform movable relative to the main body for applying a lifting force to a load by a foot force applied by a foot of an operator, including a hold-release assembly to hold the lifting platform in a raised condition and to release the lifting platform from the raised condition, wherein the hold-release assembly includes one or more releasing mechanisms for operation by the operator to release the lifting platform.

3. A hand trolley including a main body and a lifting platform movable relative to the main body for applying a lifting force to a load by a foot force applied by a foot of an operator, including a lifting apparatus configured to receive the foot force in a plurality of stages for applying the lifting force, wherein the lifting apparatus includes:
a lower member for receiving a first portion of the foot force in a first stage; and
an upper member for receiving a second portion of the foot force in a subsequent second stage.

4. The hand trolley of claim 3, including a contractible link between the lower member and the upper member that defines a maximum separation of the upper member and the lower member.

5. The hand trolley of claim 4, wherein the contractible link includes at least one inner member, and at least one housing, the housing configured to slide over the inner member to contract the contractible link.

6. The hand trolley of claim 3, wherein the lower member is connected to the upper member such that applying the downward force to the lower member applies the lifting force, and applying the downward force to the upper member displaces the upper member downward relative to the lower member and apply the lifting force.

7. The hand trolley of claim 6, wherein the lower member is connected to the upper member to via a contractible link to apply the lifting force.

8. A hand trolley including a main body and a lifting platform movable relative to the main body for applying a lifting force to a load by a foot force applied by a foot of an operator, wherein the lifting platform moves a distance substantially equal to a distance moved by the foot while applying the foot force.

9. The hand trolley of claim 8, including at least one member engageable by the foot and a lifting mechanism, the member being configured to receive the foot force applied in a downward direction, and the lifting mechanism being mechanically associated with the member and the lifting platform to apply the lifting force to the lifting platform based on the foot force being applied to the member.

10. The hand trolley of claim 8, including a hold-release assembly to hold the lifting platform in a raised condition and to release the lifting platform from the raised condition.

11. The hand trolley of claim 10, wherein the hold-release assembly is configured hold the lifting platform at a plurality of holding heights.

12. The hand trolley of claim 8, including a lifting apparatus configured to receive the foot force in a plurality of stages for applying the lifting force.

13. The hand trolley of claim 8, including any one or more of:
at least one pulley, and a line in tension around the pulley to apply the lifting force based on the applied foot force;

at least one handle configured for the operator to pull up on to apply the foot force;
at least one foot platform configured to receive the foot of the operator to apply the foot force, wherein the foot platform includes a safety guard between the foot platform and moving parts of the hand trolley;
an extension member connected to the lifting platform for carrying the load to and from the lifting platform; and
a carrying tray adjacent the lifting platform for carrying the load when moving the hand trolley.

14. A method of operating a hand trolley, including:
applying a downward foot force by a foot to the hand trolley;
converting the downward foot force into a lifting force; and
applying the lifting force to a lifting platform of the hand trolley, including moving the lifting platform by a distance substantially equal to a distance moved by the foot while applying the foot force.

15. The method of claim 14, including:
applying the downward foot force in a plurality of stages; and
applying the lifting force in a corresponding plurality of stages.

16. The method of claim 14, wherein the foot force and the lifting force have substantially the same magnitude.

17. A method of operating a hand trolley, including:
applying a downward foot force by a foot to the hand trolley;
converting the downward foot force into a lifting force; and
applying the lifting force to a lifting platform of the hand trolley, including applying the foot force on a same side of a rotational axis of at least one axle of the hand trolley as the lifting platform, such that the foot force and a weight of the lifting platform act in the same direction around the rotational axis.

18. A hand trolley including a main body and a lifting platform movable relative to the main body for applying a lifting force to a load by a foot force applied by a foot of an operator, including at least one axle connected to the main body defining a rotational axis of the hand trolley, wherein the foot force is applied on the same side of the rotational axis as the lifting platform such that the foot force and a weight of the load act in the same direction around the rotational axis.