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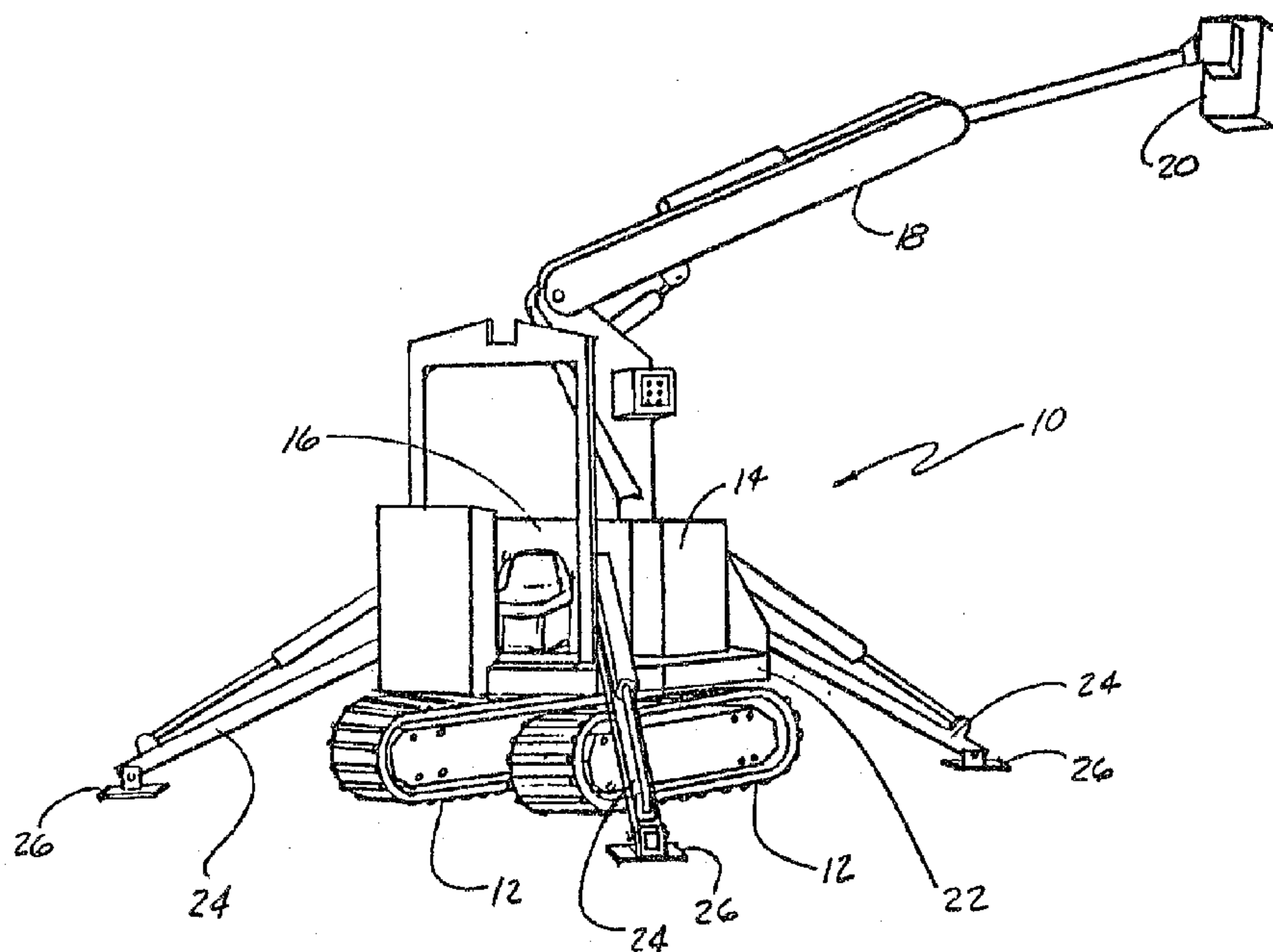
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(54) **VEHICULE CHENILLE**

(54) **TRACKED VEHICLE**



(57) A small, maneuverable, self-propelled tracked machine with a bucket or a digging tool. The machine is small and light enough to enter and be used in places, such as residential yards, in which traditional machines with buckets and digging tools, because of their size and weight, cannot be used. A three-stage gear pump powers the tracks and the boom on the bucket or digger. The machine has four outriggers to stabilize the machine during use, the outriggers arranged substantially perpendicular to each other and at angles of approximately forty-five degrees from the longitudinal axis of the machine.



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BACKGROUND OF THE INVENTION

Self-propelled vehicles with buckets and digging tools are well known. Such vehicles give the user the ability to perform necessary tasks in a variety of locations.

The locations to which past vehicles could be taken and in which they could be used were limited. The vehicles were too large and heavy to be used in many locations in which their abilities could have been used. A typical example of an inaccessible location is a residential back yard. Traditional vehicles of this type often cannot be driven in such areas, and are often so heavy that they would severely harm the lawn. The work which could have been performed using the vehicles had to be completed in another way, e.g., by having persons trimming high limbs of trees climb the trees individually, rather than being lifted in a bucket.

SUMMARY OF THE INVENTION

This invention is a small, maneuverable, self-propelled tracked machine with a bucket, digging tool or other implement or implements. The tracks are rubber, rather than metal, providing a measure of electrical insulation between the machine and the ground on which it sits. A three-stage gear pump powers the tracks and the boom on the bucket, digger or other implement. The machine also has four outriggers to stabilize the machine.

The outriggers are arranged substantially perpendicular to each other and at angles of approximately forty-five degrees from the longitudinal axis of the machine.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a perspective view of the "tracked vehicle" with boom extended and outriggers in place.

FIGURE 2 is a perspective view of the "tracked vehicle" with boom contracted and outriggers in folded position.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Although the present invention may use any of a variety of tools, the embodiment described herein is has a bucket in which workers may be elevated. It will be understood that the embodiment described herein is only one of many embodiments of the invention. It is possible to make modifications without departing from the scope or spirit of the invention as claimed.

Referring now with particularity to the figures, it can be seen that a tracked lifting machine 10 is provided. The machine 10 has two rubber tracks 12. The tracks 12 are powered by a three-stage gear pump 14. The engine used to power the gear pump 14 can be of any type suitable to the application, e.g., a diesel engine.

The machine is equipped with a hydraulically operated boom 18 which raises and positions the bucket 20. The boom 18

can be lifted through an angle from a plane parallel to the ground, and can be extended to further lift the bucket 20 and extend it away from the machine 10. Further, the boom 18 can be rotated about the point of attachment to the platform 22 through a full 360°. The ability to pivot the boom 18 in this manner allows the operator of the machine 10 to reach more positions with the bucket 20 than with a traditional machine whose boom cannot be rotated through 360°.

The abilities to rotate the boom 18 through 360° and to extend the boom 18 so the bucket 20 reaches far from the machine 10 are dependent upon the four outriggers 24, their placement and positioning on the machine 10. Because the machine 10 is so small in length and width, giving it a small base, to extend the boom 18 and bucket 20 far without the outriggers 24 would make the machine 10 tend to tip it over.

The location of the outriggers 24 on the machine 10 is important to the stability of the machine 10. An outrigger 24 is placed approximately at each corner of the machine 10. Each outrigger 24 extends in a direction which is at an angle of approximately 45° to the longitudinal axis of the machine. When the outrigger 24 is extended, the foot 26 of the outrigger 24 is placed on the ground far outside of the base of the machine 10. For example, the foot 26 of the front right outrigger 24 is both far in front and far to the right of the base of the machine 10. Together, the four outriggers 24 form a generally rectangular

area much larger than the base of the machine 10. This provides a much more stable base for the machine 10.

The embodiment of the invention disclosed herein is but one embodiment of the invention, and modifications and variations can be made without departing from the spirit or scope of the invention as claimed.

Claims

1. A compact self-propelled machine having a longitudinal axis, said machine comprising:

- (a) a platform;
- (b) a pair of spaced apart tracks operably attached to the platform for propelling the platform;
- (c) a plurality of spaced apart outriggers operatively attached to the platform, and movable from a substantial vertical rest position to a ground engaging position in which the outrigger engages the ground beyond the platform to provide greater stability to the machine than that afforded by said pair of spaced tracks;
- (d) an extendable boom attached to the platform and allowing 360° of rotation with respect to the platform;
- (e) a tool removably attached to the end of the boom; and
- (f) an engine mounted to the platform for powering the spaced apart tracks, outriggers and boom.

2. The self-propelled machine of claim 1 wherein the tracks are formed from a non-conductive elastomeric material.

3. The self-propelled machine of claim 1 wherein each outrigger further includes a foot pivotally connected to the ground engaging end of each outrigger.

4. The self-propelled machine of claim 1 wherein the engine includes a three stage gear pump for providing hydraulic power to the outriggers, boom and tools.

5. The self-propelled machine of claim 1 wherein the platform has four corners and an outrigger extends angularly from each corner, said outriggers being arranged substantially perpendicular to each other and movable in a vertical planes lying at angles of approximately 45° from the longitudinal axis of the machine.

6. The self-propelled machine of claim 1 wherein the tool comprises a bucket.

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7. The vehicle of claim8 wherein the tool comprises a digger.

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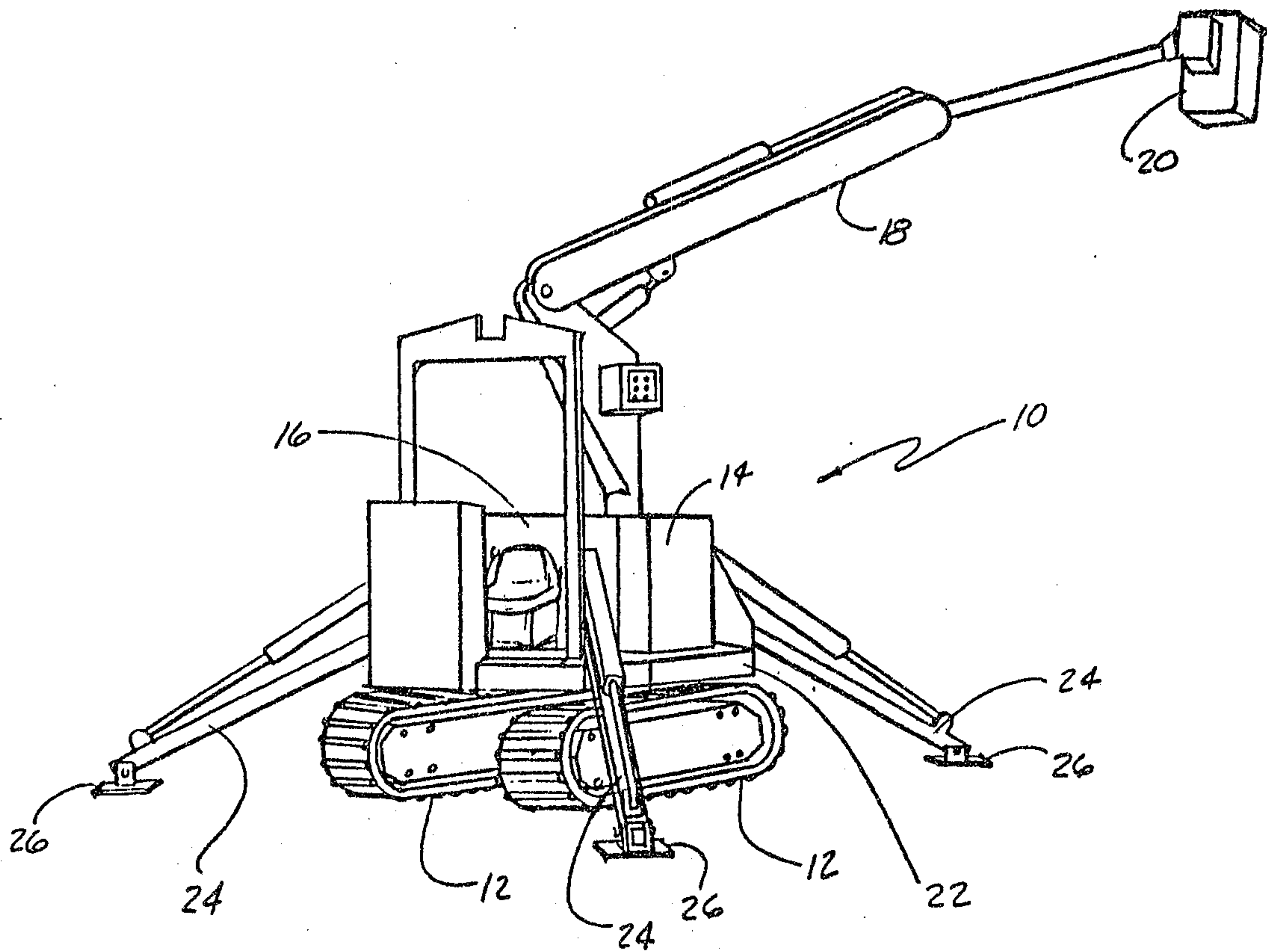


FIG. 1

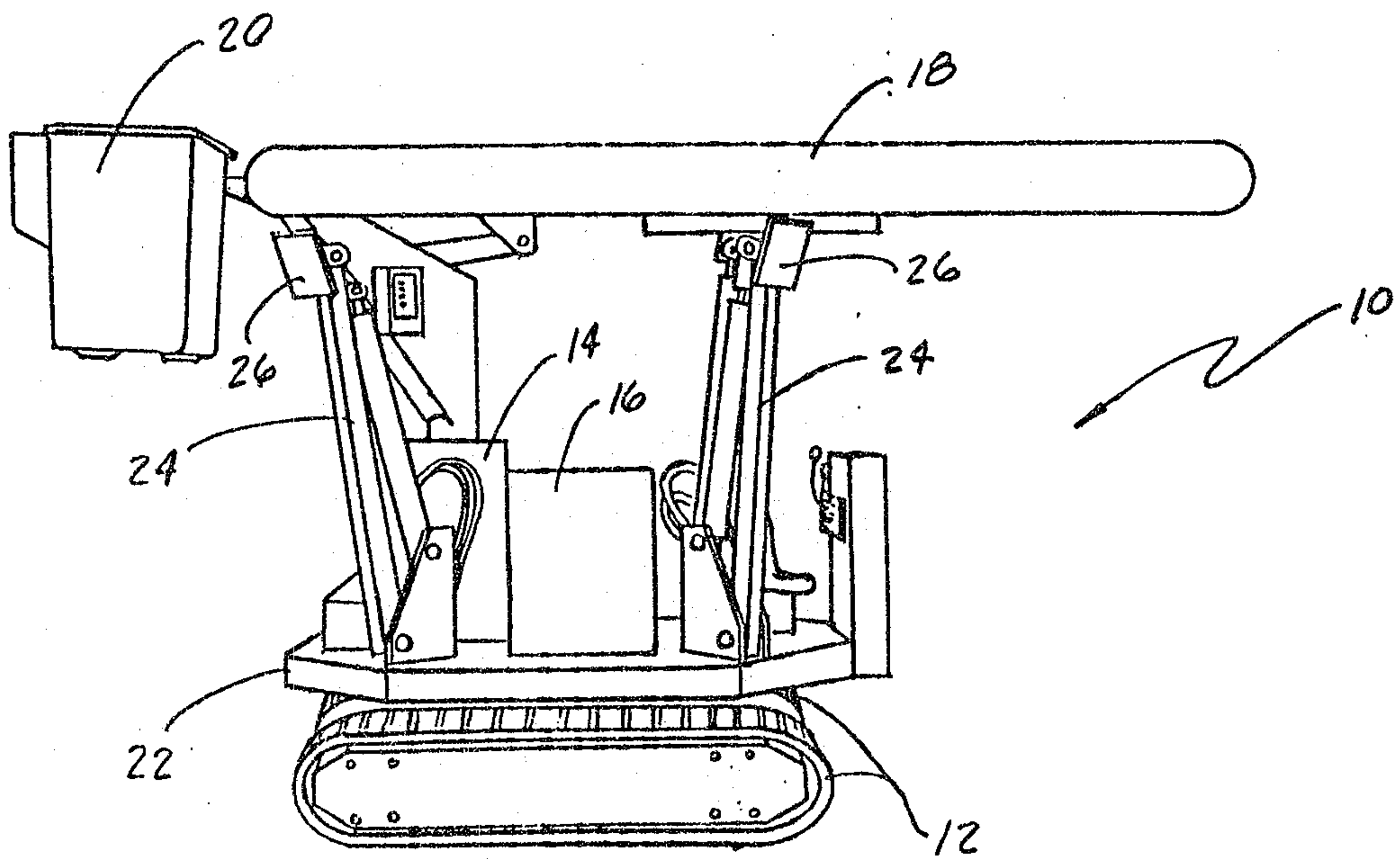


FIG. 2

