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(54) **TELESCOPING GUIDE FOR A CONCRETE SAW**

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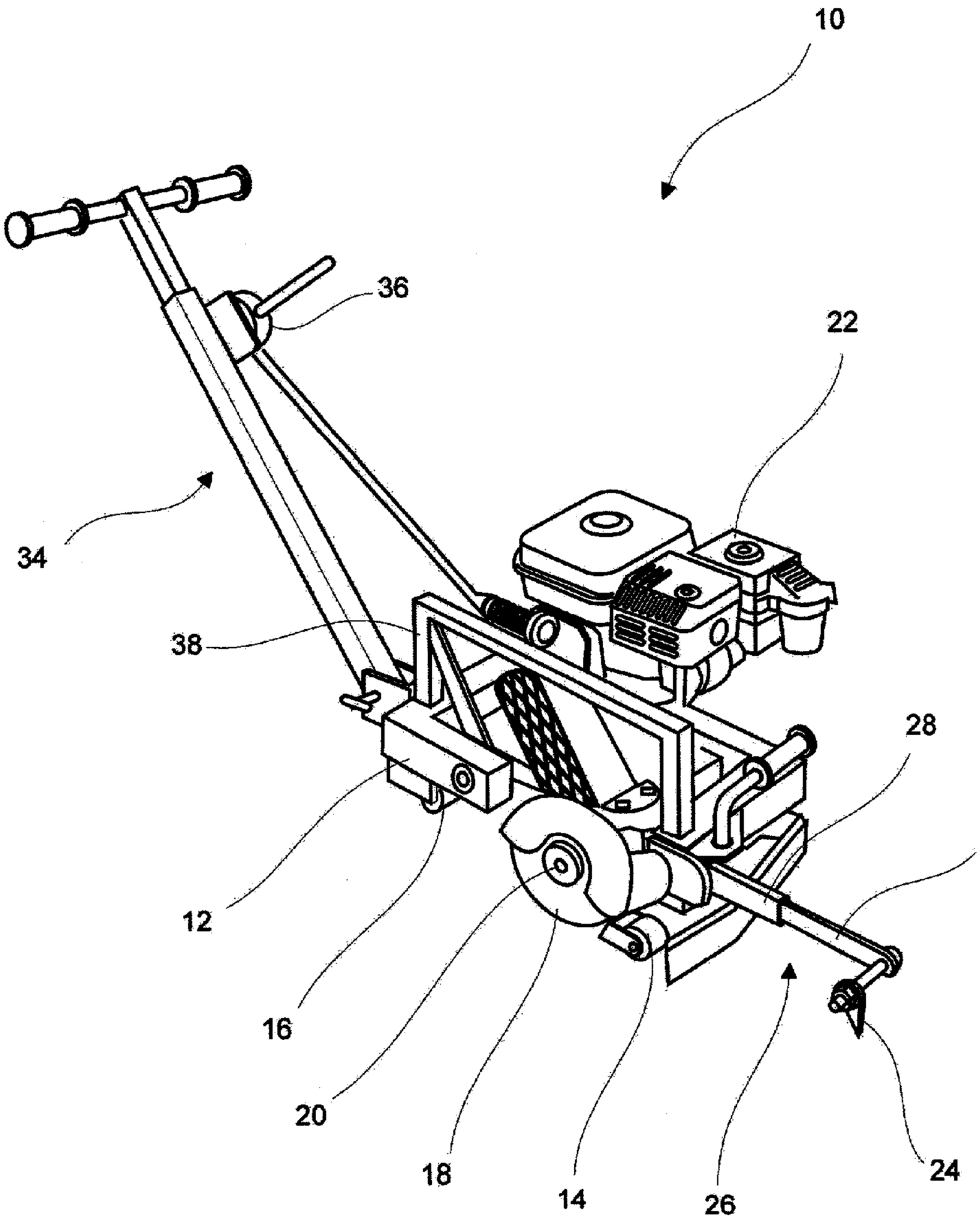
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(57) **ABSTRACT**

A saw for cutting concrete includes a readily movable base, a motor connected to the base and includes a cutting blade and drive mechanism operably connected thereto. A handle is provided and is connected to the base and can extend rearwardly and upwardly therefrom so that an operator may stand behind the saw to push it during operation. A telescopic guide is provided on the base and includes a pivot connection to allow folding to a storage or travel position. In a broad sense, the invention is directed to a telescoping guide for a saw, which includes an arm having an end serving as a guiding pointer and a mounting end, and a mechanism connectable to the saw for slidably receiving the mounting end.



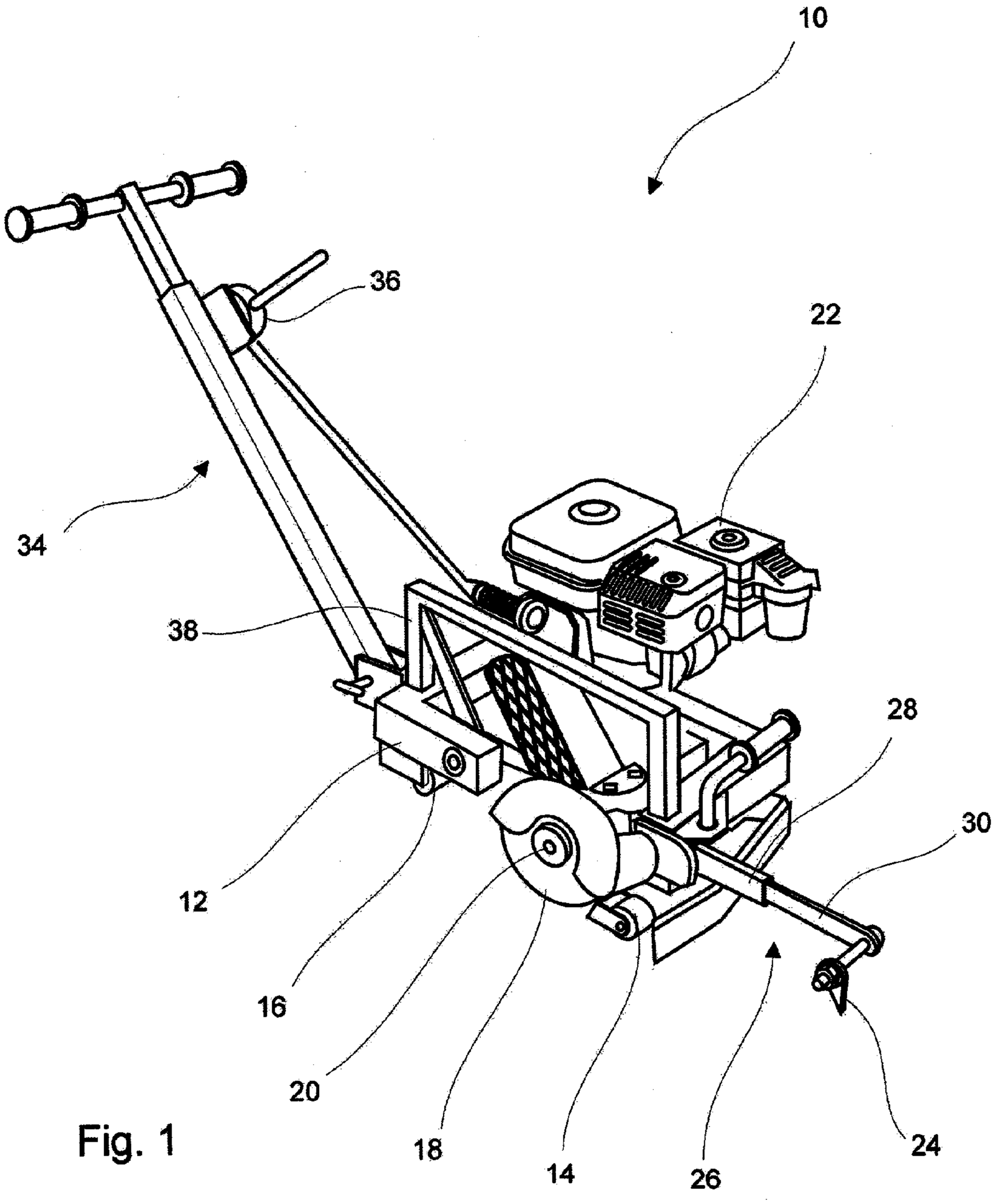


Fig. 1

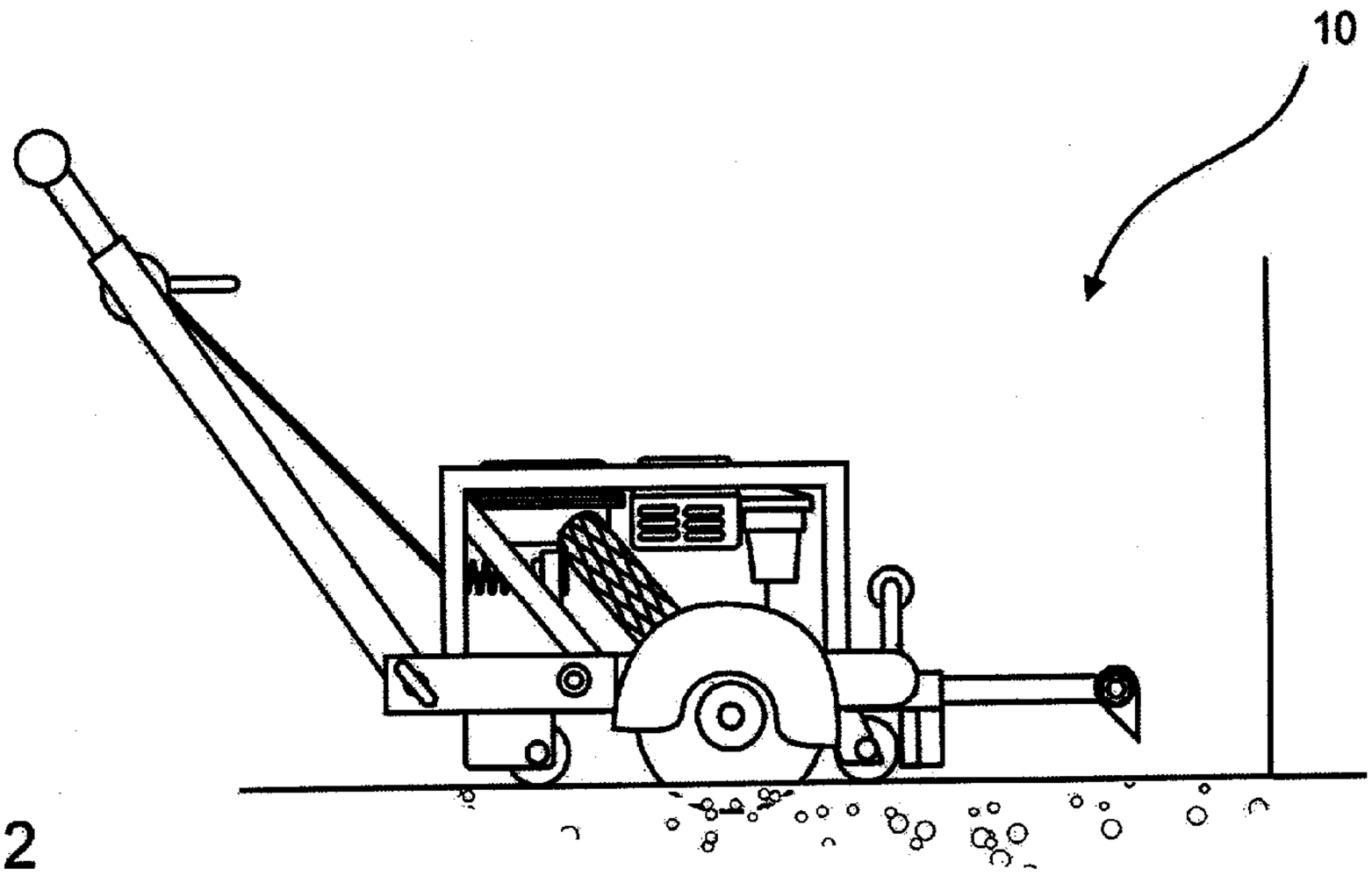


Fig. 2

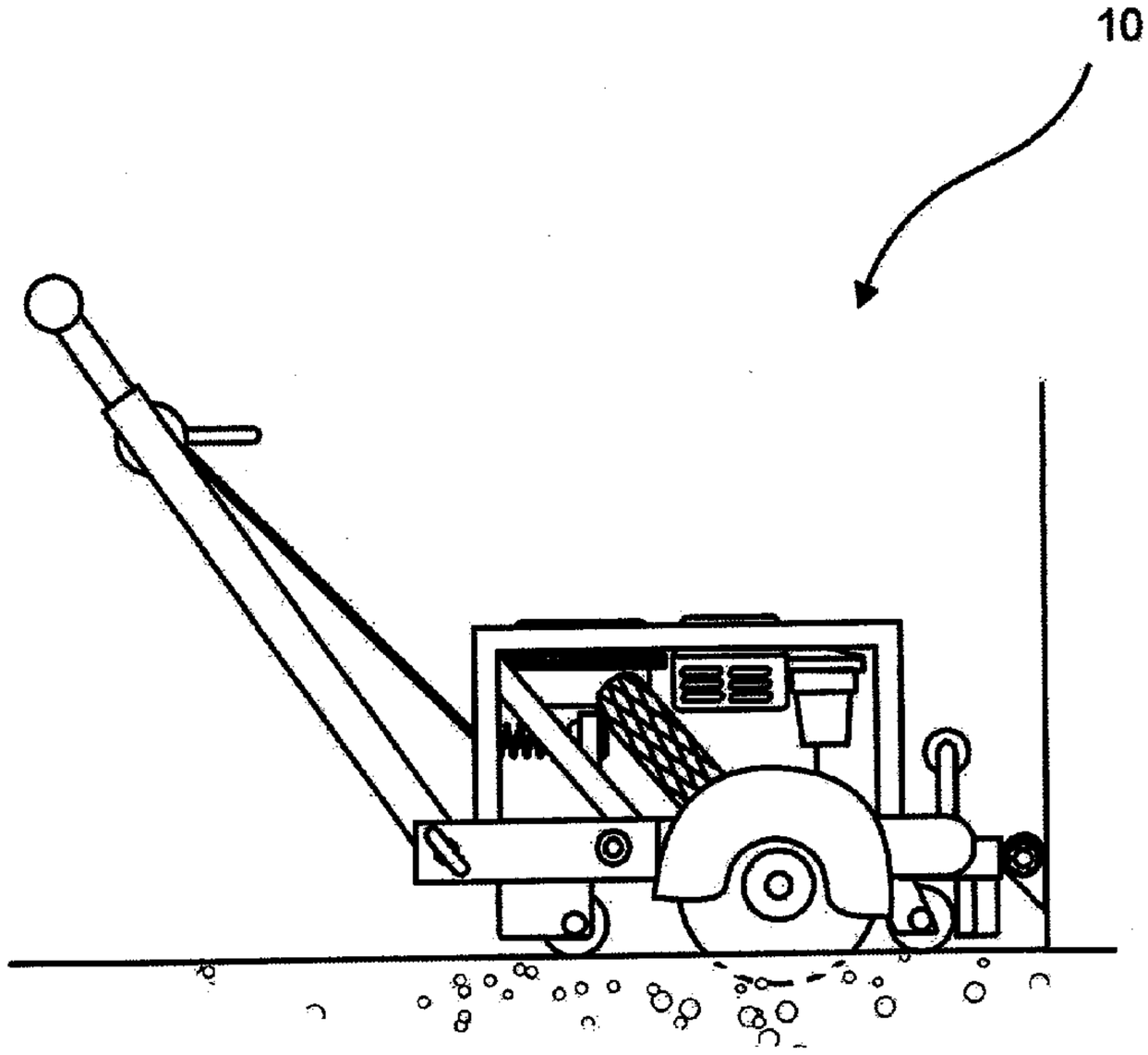


Fig. 3

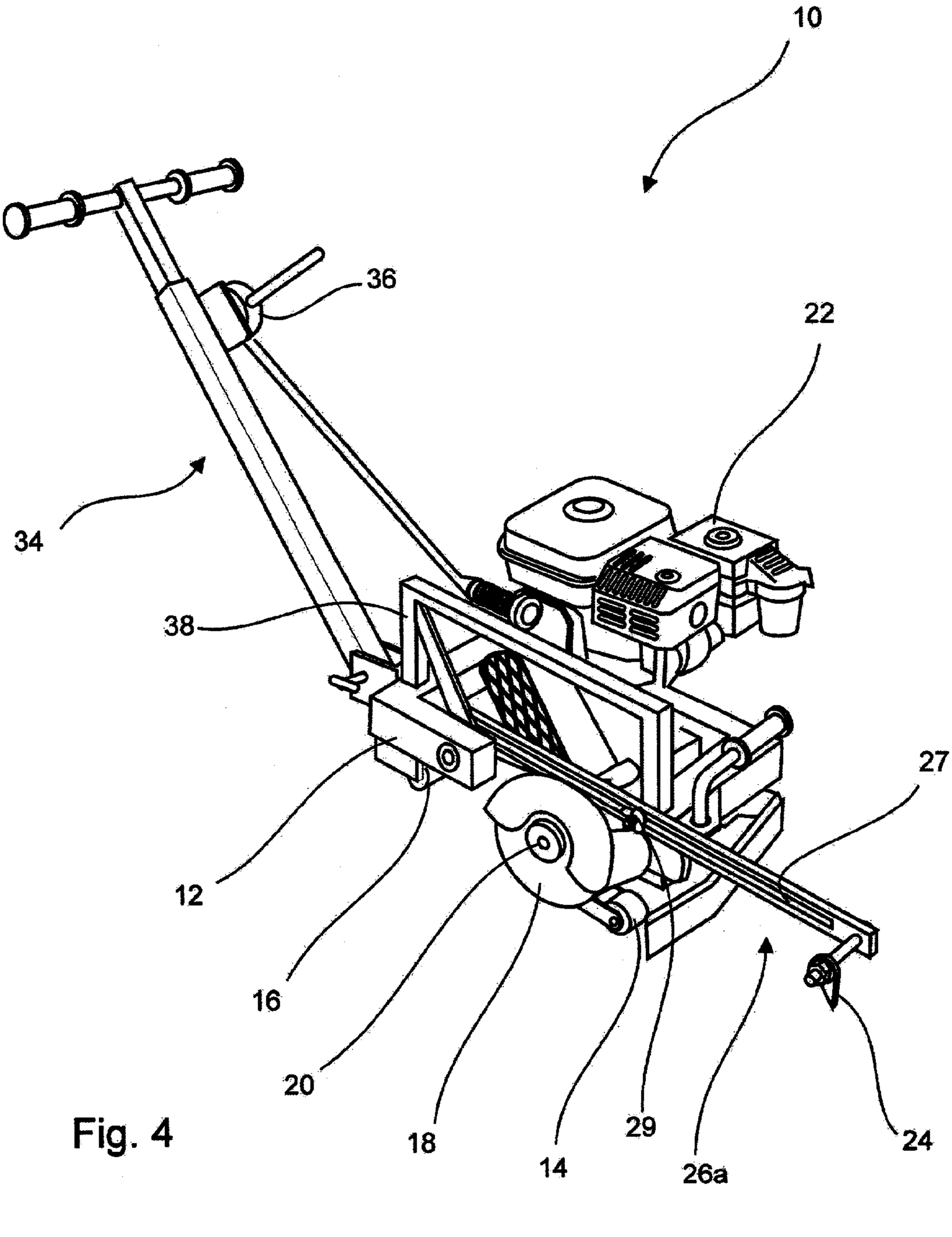


Fig. 4

TELESCOPING GUIDE FOR A CONCRETE SAW

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates in general to concrete saws. In particular, the present invention relates to an improved saw for the accurately cutting along a predefined line in close proximity to walls and posts to better aid in performing grooving of uncured or green, in addition to cured concrete to aid in crack control.

[0003] 2. Description of the Related Art

[0004] It is well known to provide grooves in concrete prevent cracks from running the length of the concrete surface. The groove in the concrete provides an area of reduced strength to ensure that the cracks which form during shrinkage of the concrete will be formed along the line of the groove rather than at some other point. This has important structural implications, in addition to reducing cost of damaged sections of concrete. Further, it provides a more aesthetically pleasing appearance.

[0005] Various patents, such as U.S. Pat. Nos. 6,019,433, D404,042 and 5,241,946, show concrete saws. 6,019,433 and D404,042 depict a concrete saw which employs an arm which is pivotally connected to the housing of the saw which serves as a guide for the cutting of the grooves. As the saw approaches a wall or obstruction, the arm is lifted and the saw is enabled to further continue until its housing abuts the wall or obstruction. This leaves the operator to perform the remainder of the cut by eye without the aid of the guide. While this type of saw has found significant success in the market place, there remains a need to improve upon such saws.

SUMMARY OF THE INVENTION

[0006] It is an object to improve saws, particularly concrete saws.

[0007] Another object of the present invention is to ease the cutting of grooves in concrete.

[0008] Yet another object of the present invention is to provide a concrete saw which provides an improved a guide.

[0009] A further object of the present invention is to provide a concrete saw which may be used in confined areas and which will produce a cut which closely approaches an abutting or adjacent wall with increased accuracy and ability to follow predefined lines.

[0010] It is also an object to provide an improved guide for a saw.

[0011] These and other objects are achieved by a saw for cutting concrete which includes a readily movable base. A motor is connected to the base and includes a cutting blade and drive mechanism operably connected thereto. A handle is provided and is connected to the base and can extend rearwardly and upwardly therefrom so that an operator may stand behind the saw to push it during operation. A telescopic guide is provided on the base and includes a pivot connection to allow folding to a storage or travel position. In a broad sense, the invention is directed to a telescoping guide for a saw, which includes an arm having an end serving as a guiding pointer and a mounting end, and means connectable to the saw for slidably receiving the mounting end. Since many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] The objects and features of the invention noted above are explained in more detail with reference to the drawings in which like reference numerals denote like elements, and in which:

[0013] **FIG. 1** is a perspective view of the saw of the present invention in the operative position;

[0014] **FIG. 2** is a side view of the saw of the present invention as it approaches a wall; and

[0015] **FIG. 3** is another side view of the saw of the present invention illustrating the guide's telescoping ability as it approaches a wall.

[0016] **FIG. 4** is another embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0017] Referring to the drawings, a saw according to the present invention is generally designated by reference numeral **10**. With the exception of the novel improvements described hereinafter, components of the saw **10** which appear in the drawings are shown and described in the above noted U.S. Pat. No. 6,019,433 and are incorporated herein by reference.

[0018] The saw **10** includes a base **12** which is supported for movement with respect to the concrete by a pair of front wheels **14** and a pair of rear wheels **16**. The front wheels **14** may be supported for movement with respect to the base **12** by individual axles mounted on the base **12** or a single axle as is known in the art. As is known, the saw **10** is to be capable of travel upon uncured concrete and the wheels **14** and **16** need to provide sufficient surface area for the saw's weight to ensure that the wheels do not mar the concrete surface.

[0019] The forward right hand side of the base **12** (with respect to the direction of travel) includes a blade **18** which is operably connected to a drive shaft **20** which in turn is operably connected to a motor **22**. It should be understood to those skilled in the art that various drive arrangements can be employed to serve as the drive mechanism, such as a belt or direct drive system. As should be readily understood, the motor **22** will thus drive the blade **18** via the drive shaft **20**. Typically, the blade **18** extends laterally outward from the main portion of the base **12** to allow the user to more easily view the cutting blade **18** for purposes of cutting near adjacent walls or other obstacles. The blade **18** may be of any type suitable for the grooving of concrete, but is preferably an abrasion blade formed of compressed metal particles and may have a plurality of notches extending inwardly from the outer periphery, as is known in the art.

[0020] Blade **18** and wheel **14** are generally aligned with a forwardly mounted, deflectable pointer **24** which is aimed at the intended path of travel. Usually a suitable chalk line will be marked upon the concrete surface prior to cutting to

guide the saw operator. Arm **26** is connected to the base **12** and leads to the adjustable pointer **24** that follows the chalk line. Arm **26** is telescopically formed wherein a female sleeve portion **28** pivotally connected to the base **12** receives a male portion **30**. The female sleeve portion **28** and male portion **30** are so configured to limited the relative travel therebetween, which can be by way of a stop. The improved arm **26** enables the pointer **24** to stay adjacent the path to better enable the operator to guide the saw **10** when approaching the wall or obstruction. In other words, the arm **26** serves as a telescopic guide wherein the pointer **24** which is generally aligned with the cutting path of the blade **18** is capable of remaining adjacent the concrete along the path while the arm **26** is telescoped. Thus, a significant advantage is gained over the art.

[**0021**] The saw **10** is manually controlled with a handle assembly **34** which is connected to the base **12**. The handle **34** supports a control mechanism **36** which is operably connected to the motor **22**.

[**0022**] Alternatively, the arm **26***a* can be made to simply slide back and forth as shown in **FIG. 4**. Here, the arm **26***a* includes a slot **27** which slides on bolts **29** which laterally extend from a generally inverted unshaped frame member **38** which connects to the base **12**.

[**0023**] From the foregoing, it will be seen that this invention is one well adapted to obtain all the ends and objects herein set forth, together with other advantages which are inherent to the structure. As many possible embodiments may be made of the invention without departing from the scope thereof, it is to be understood that all matter herein set forth or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense. Other saws might be adapted for use with the present invention. The above described embodiments are set forth by way of example and is not for the purpose of limiting the present invention. It will be readily apparent to those skilled in the art that obvious modifications, derivations and variations can be made to the embodiments without departing from the scope of the invention. Accordingly, the claims appended hereto should be read in their full scope including any such modifications, derivations and variations.

What is claimed is:

1. A saw for grooving concrete, comprising:

a motorized concrete saw having a movable base, a cutting blade, means operably connected with said base for driving said blade such that when said base is disposed on the concrete, said cutting blade is enabled to cut a groove along an intended path in the concrete; and

a telescopic guide connected to said saw in a manner to extend along said intended path to be cut.

2. The saw of claim 1, wherein said telescopic guide is pivotally connected to said base.

3. The saw of claim 1, which includes a handle connected to said base which can extend rearwardly and upwardly therefrom so that an operator may stand behind the saw to push it during operation.

4. The saw of claim 1, wherein said telescopic guide is connected to said base.

5. The saw of claim 1, wherein said telescopic guide includes a pointer which is generally aligned with said cutting path of said blade and capable of remaining adjacent the concrete along the path while said guide is telescoped.

6. A saw for cutting a groove along a relatively flat surface, comprising:

a motorized concrete saw having a movable base, a cutting blade, means operably connected with said base for driving said blade such that when said base is disposed on the surface, said cutting blade is enabled to cut a groove along an intended path in the surface; and

a telescopic guide connected to said saw in a manner to extend along said intended path to be cut.

7. The saw of claim 6, wherein said telescopic guide is pivotally connected to said base.

8. The saw of claim 6, which includes a handle connected to said base which can extend rearwardly and upwardly therefrom so that an operator may stand behind the saw to push it during operation.

9. The saw of claim 6, wherein said telescopic guide is connected to said base.

10. The saw of claim 6, wherein said telescopic guide includes a pointer which is generally aligned with said cutting path of said blade and capable of remaining adjacent the surface along the path while said guide is telescoped.

11. A telescoping guide for a saw, comprising:

an arm having an end serving as a guiding pointer and a mounting end;

means connectable to the saw for slidably receiving said mounting end.

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