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[54] **POWER TOOL FOR THE APPLICATION OF SCREWS OR THE LIKE**

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[52] **U.S. Cl.** **144/32,** 81/56

[51] **Int. Cl.** **B25b 23/08**

[58] **Field of Search** 144/32; 81/56

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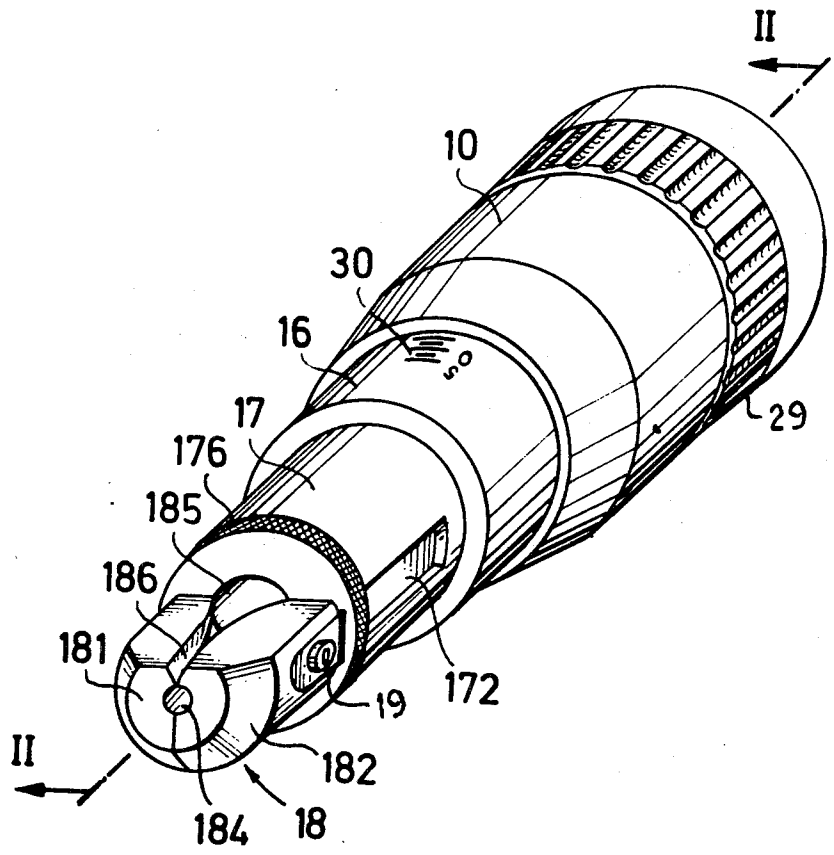
[57] **ABSTRACT**

An attachment for portable power drills which serves to apply screws or similar threaded fasteners has a housing adapted to be clamped to the body of a drill and a drive shaft which can be rotated by the drill through the intermediary of an overload clutch. A control sleeve is movable axially and is turnable relative to the housing and supports at its front end a funnel for reception of screws in such a way that the head of a screw is insertable through a lateral inlet opening, that the stem or shank of the screw is insertable through a forwardly tapering slot, and that the tip of the screw can extend through a central outlet opening of the funnel. The latter has two sections which are biased towards each other by leaf springs anchored in the control sleeve. The rear end face of the control sleeve has sockets of varying depth which can be moved into registry with stops provided on an axially adjustable guide sleeve which surrounds the control sleeve. A removable bit in the drive shaft can rotate a screw in the funnel while the control sleeve moves rearwardly to the extent determined by the stops. The control sleeve is movable to an angular position in which it can be retracted to such an extent that the bit is accessible for inversion or replacement.

15 Claims, 5 Drawing Figures



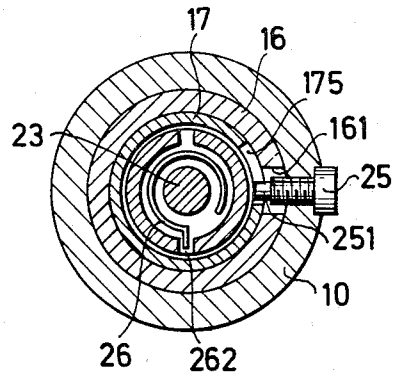


Fig. 4

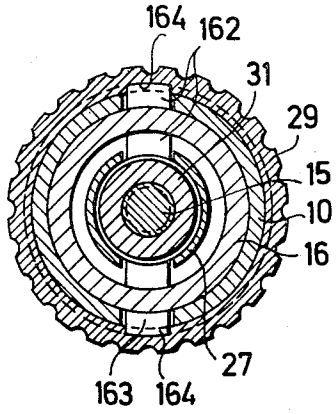


Fig. 5

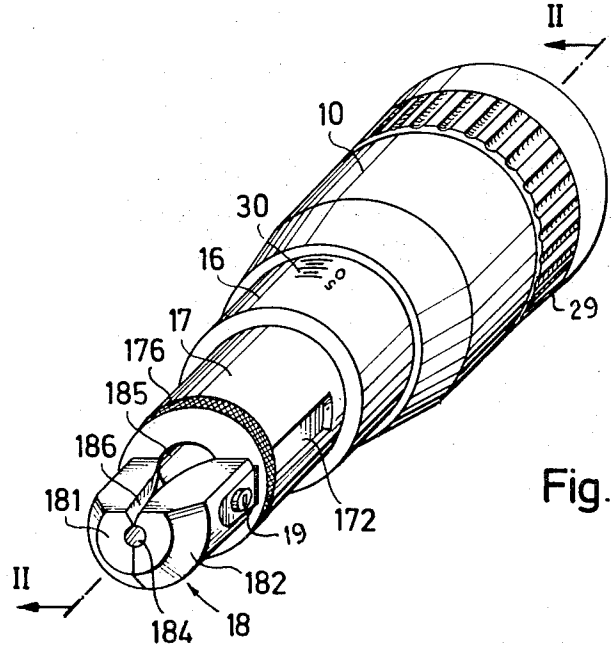


Fig. 1

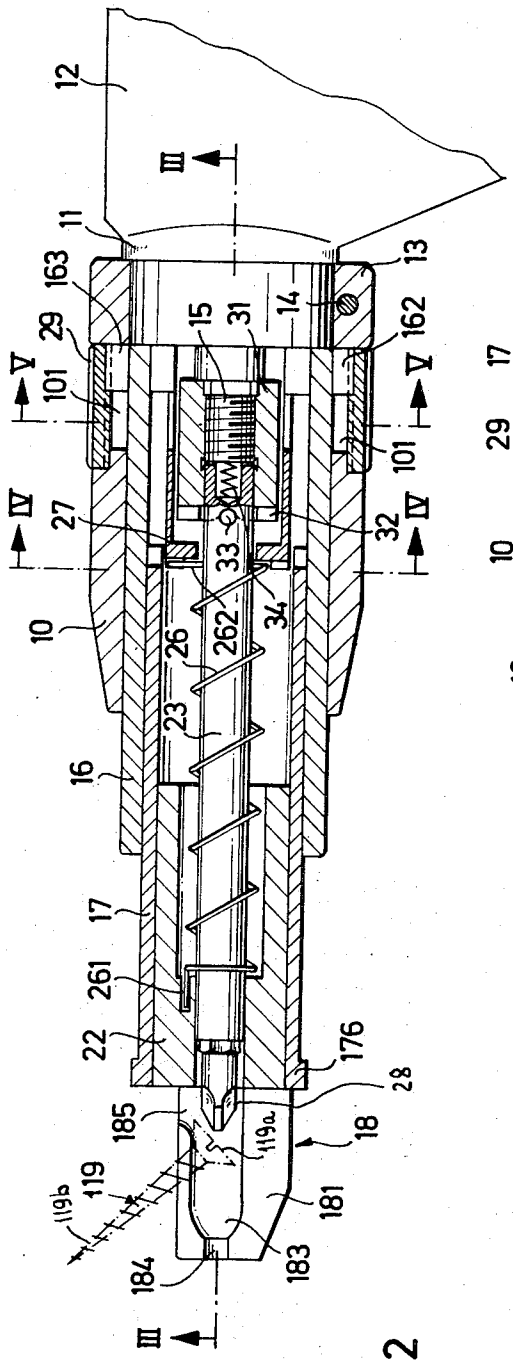

12
III
11
163
13
29
15
31
14
162
V
101
V
101
IV
27
32
IV
33
262
34
10
26
23
16
17
261
22
176
28
185
119a
18
119
119b
181
184
183
III

Fig. 2

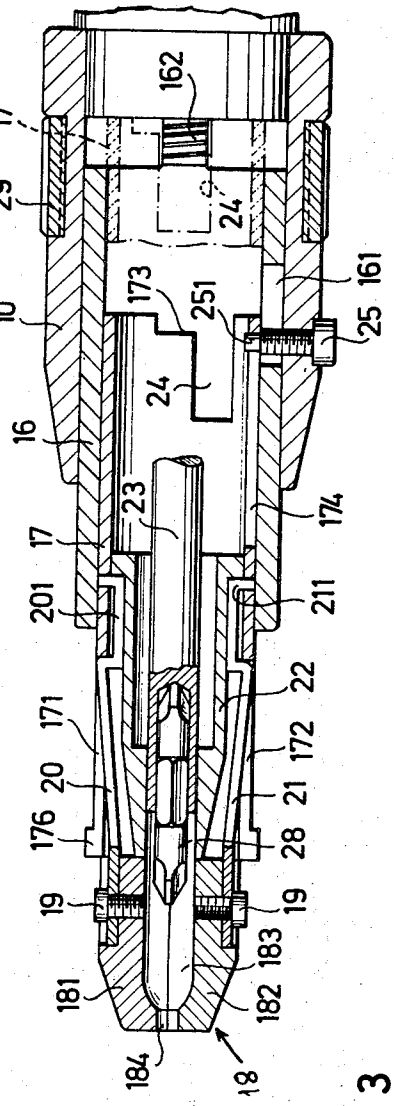

162
17
29
24
173
251
161
10
25
24
16
23
174
17
201
211
22
171
172
20
21
176
28
19
19
183
181
182
184
18

Fig. 3

POWER TOOL FOR THE APPLICATION OF SCREWS OR THE LIKE

BACKGROUND OF THE INVENTION

The present invention relates to power tools in general, and more particularly to improvements in power tools for the application of recessed screws (known as Phillips screws), slotted head screws or analogous threaded fasteners. Still more particularly the invention relates to a screw driver which can be utilized as an attachment to a conventional power tool or which can constitute a power tool.

It is already known to construct a screw driver as an attachment to a portable power tool, such as a portable drill. In accordance with a presently known proposal, the attachment is provided with an overload clutch which can disconnect its drive shaft from the rotary output element of the power tool and with a receptacle having a lateral inlet opening for introduction of fasteners in front of a bit on the drive shaft. The receptacle comprises two sections which can move apart so as to permit the expulsion of a fastener while the fastener is being rotated by the bit. A drawback of such proposal is that the receptacle cannot accommodate screws or analogous fasteners of widely different length. This means that the receptacle must be replaced by differently dimensioned receptacles whenever the user wants to switch from the application of relatively short screws to the application of relatively long screws or vice versa. Furthermore, the replacement of bits in such conventional attachments presents serious problems because the attachment must be at least partially dismantled in order to afford access to the bit. The same holds true when the receptacle for screws has to be replaced by a differently dimensioned receptacle and/or when the attachment is to be adjusted to select the extent of penetration of a screw into a workpiece.

SUMMARY OF THE INVENTION

An object of the invention is to provide a novel and improved power tool for the application of recessed screws, slotted head screws or analogous fasteners which is constructed and assembled in such a way that it can accept and properly orient relatively long as well as relatively short fasteners without necessitating any interchange or replacement of parts.

Another object of the invention is to provide a screw driver which can be utilized as an attachment to existing power tools or as an independent power operated device.

A further object of the invention is to provide a compact, relatively simple, reliable and easy to operate screw driver wherein the bit which rotates a properly oriented fastener is accessible for inspection, inversion or replacement without necessitating even partial dismantling of the device.

An additional object of the invention is to provide a screw driver of the above-outlined character with novel and improved means for facilitating rapid, convenient and effortless adjustment for the purpose of determining the extent of penetration of a fastener into a piece of wood, metal or other material.

Another object of the invention is to provide an attachment which can be utilized as a screw driver and which can be connected with a wide variety of existing

commercially available portable power tools, such as portable drills which can be operated electrically or pneumatically.

The invention is embodied in a device for applying screws or analogous threaded fasteners. The device comprises a housing which can constitute an integral part of a portable power tool or can be attached to the body of a commercially available power tool, a substantially sleevelike control member which is reciprocable in the housing and has a preferably knurled, milled or otherwise roughened exposed front end portion, a shaft or an analogous drive member which is rotatably mounted in the housing and can receive torque from the rotary output element of a conventional portable power tool or from a discrete motor, a fastener-accommodating receptacle which is adjacent to the front end portion of the control member and is reciprocable with the control member and includes a plurality of sections at least one of which is movable substantially radially of the axis of the drive member toward and away from the other section, the receptacle further having an outlet opening for the tip of a properly oriented fastener therein, a bit or analogous means provided on the drive member for rotating a properly oriented fastener in the receptacle, and stop means provided in the housing to determine the extent of movement of the control member relative to the drive member and to thus determine the extent of penetration of a fastener in the receptacle beyond the outlet opening.

The device preferably further comprises means for biasing the control member axially of the drive member in a direction to move the receptacle away from the housing, and one or more leaf springs or analogous resilient means for yieldably connecting the section or sections of the receptacle to the control member. The housing preferably accommodates a sleeve or analogous guide means which surrounds the rear portion of the control member and the control member is turnable relative to the guide means about the axis of the drive member. The aforementioned resilient means which biases the control member axially can also serve to bias the control member to a predetermined angular position. The stop means is preferably provided on the guide means and the device preferably further comprises adjusting means for moving the guide means together with the stop means substantially axially of the drive member to thereby determine the exact extent of penetration of a fastener into a workpiece.

The sections of the receptacle define a fastener-accommodating chamber which has a rear portion adjacent to the front end portion of the control member, an inlet opening communicating with the rear portion of the chamber and serving to permit insertion of the head of a fastener into the chamber and a longitudinally extending slot which communicates with the chamber and with the inlet opening to permit insertion of the stem or shank of a fastener into the chamber. The front end portion of the chamber communicates with the outlet opening through which the shank and thereupon the head of a properly oriented fastener is expelled while the fastener is being rotated by the bit.

The novel features which are considered as characteristic of the invention are set forth in particular in the appended claims. The improved power tool itself, however, both as to its construction and its mode of opera-

tion, together with additional features and advantages thereof, will be best understood upon perusal of the following detailed description of certain specific embodiments with reference to the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a device which embodies the invention and which constitutes an attachment for a portable power drill or the like;

FIG. 2 is a central longitudinal vertical section of the device shown in FIG. 1, as seen in the direction of arrows from the line II—II, further showing a portion of a portable power drill and a threaded fastener which is in the process of being inserted into the receptacle;

FIG. 3 is a longitudinal vertical section view of the device as seen in the direction of arrows from the line III—III shown in FIG. 2, the control member being shown in two different positions one of which is indicated by phantom lines;

FIG. 4 is a transverse sectional view as seen in the direction of arrows from the line IV—IV shown in FIG. 2; and

FIG. 5 is a transverse sectional view as seen in the direction of arrows from the line V—V of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The illustrated device is an attachment which can be separably secured to an extension **11** (see FIG. 2) of a housing or body **12** forming part of a commercially available power drill. The attachment comprises a housing **10** which is secured to the extension **11** by means of a slotted clamping ring **13** and a tightening screw **14**. The rotary output element **15** of the portable power tool is then coupled to the rotary drive shaft **23** of the attachment. The shaft **23** is mounted in the housing **10** and extends forwardly therefrom.

The housing **10** accommodates a rotatable and axially movable guide sleeve **16** which surrounds the rear part of a control sleeve **17**. The sleeve **17** is rotatable and movable axially within limits relative to the drive shaft **23**. The front end portion of the control sleeve is exposed at all times and is provided with a knurled or milled or otherwise roughened ring **176** which can be grasped by hand to facilitate axial and angular displacements of the control sleeve **17**. The front end portion of the sleeve **17** carries a receptacle or funnel **18** which serves for temporary reception and orientation of screws or analogous fasteners **119** (see FIG. 2).

The receptacle **18** comprises two mirror-symmetrical sections or halves **181, 182** which define an elongated fastener-receiving chamber **183**. The rear end portion of the chamber **183** communicates with a lateral inlet opening **185** which can permit convenient insertion of the head **119*a*** of the screw **119**. The front end portion of the chamber **183** communicates with a centrally located outlet opening **184** through which the tip of the screw **119** can extend. Furthermore, the sections **181, 182** of the receptacle **18** define an elongated slot **186** which tapers gradually in a direction from the inlet opening **185** towards the outlet opening **184**. The purpose of the slot **186** is to permit insertion of the shank or stem **119*b*** of the screw **119** into the chamber **183**, whereby the tip of a relatively long screw extends through and beyond the outlet opening **184** when the screw is properly oriented relative to the sections **181, 182** of the receptacle **18**. The lateral inlet opening **185** is preferably immediately adjacent to the ring **176** at the front end of the control sleeve **17**.

The resilient means for yieldably connecting the sections **181, 182** of the receptacle **18** to the front end portion of the control sleeve **17** comprises two leaf springs **20** and **21** the front end portion of which are connected to the respective sections by means of threaded bolts or analogous fasteners **19**. The median portions of the leaf springs are received in longitudinally extending cutouts or slots **171, 172** of the control sleeve **17** and the sleeve **17** is further provided with internal recesses for reception of hook-shaped rear end portions **201, 211** of the leaf springs **20, 21**. The means for retaining the end portions **201, 211** in the respective recesses or cutouts of the control sleeve **17** comprises a tubular confining element **22** which is fitted onto the sleeve **17** and which preferably constitutes a bearing sleeve for the front end portion of the drive shaft **23**.

As best shown in FIG. 3 wherein the clutch between the output element **15** of the power tool and the drive shaft **23** is removed, the rear end face **173** of the control sleeve **17** is stepped, i.e. it is provided with a plurality of recesses or sockets of varying depth. Such sockets include two deepmost sockets **24** only one of which is shown in FIG. 3. The bottom portions of the sockets are bounded by transversely extending surfaces which are located at different distances from the front end portion of the control sleeve **17**. The control sleeve **17** is further provided with one or more longitudinally extending guide slots **174**, one of which is shown in FIG. 3. The rear end portion of each guide slot **174** communicates with a transversely or circumferentially extending relatively short guide slot **175** shown in FIG. 4. The slot **174** or **175** receives the shank **251** of a threaded guide pin **25** which is connected to the housing **10** and extends radially inwardly through an elongated slot **161** of the guide sleeve **16** and into the guide slot **174** or **175**, depending on the momentary angular and axial position of the control sleeve **17**. The arrangement is such that, when the shank **251** extends into the transverse guide slot **175**, the control sleeve is movable angularly relative to the guide sleeve **16** and housing **10** but cannot move axially, namely, in the axial direction of the drive shaft **23**. On the other hand, when the shank **251** extends into the guide slot **174**, the control sleeve **17** is movable lengthwise so as to advance its front end portion **176** toward or away from the housing **10**. Such angular and axial movements of the control sleeve **17** are shared by the sections **181, 182** of the receptacle **18**. In addition, and as mentioned before, the sections **181, 182** are movable radially of the axis of the shaft **23** towards and away from each other and are normally biased by the respective springs **20, 21** to the positions shown in FIG. 3 in which the volume of the chamber **183** is reduced to a minimum. The sections **181, 182** will move apart in automatic response to travel of the head **119*a*** of a properly inserted and oriented screw **119** toward and through the outlet opening **184** of the receptacle **18**. If desired, the slots **174, 175** of the control sleeve **17** can be replaced with a single longitudinally extending slot having a length corresponding to that of the illustrated slot **174** and a width corresponding to the length of the transversely extending slot **175**. This renders it possible to change the angular position of the control sleeve in each of its axial positions.

The means for biasing the control sleeve forwardly so as to move its front end portion **176** away from the housing **10** and guide sleeve **16** comprises a helical spring **26** which surrounds the drive shaft **23.** The front end portion **261** of the spring **26** is received in an axially extending recess of the tubular confining element **22**; however, it is clear that the front end portion **261** can be anchored directly in the control sleeve **17.** The rear end portion **262** of the spring **26** is anchored in a stationary clutch casing **27** which is mounted in the interior of the housing **10.** Due to the just described mounting of the spring **26,** the latter can serve as a means for biasing the control sleeve axially forwardly as well as for biasing the control sleeve to a predetermined angular position in which the rear end face **173** of the control sleeve assumes a selected angular position relative to two axially adjustable stops **162, 163** provided on the guide sleeve **16.** The spring **26** will store energy when the control sleeve **17** is moved by hand rearwardly toward the extension **11** of the power tool body **12.** Furthermore, the spring **26** will store energy when the control sleeve **17** is rotated or turned to leave its predetermined angular position. By turning the control sleeve **17** relative to the housing **10** and guide sleeve **16,** the user of the attachment can place selected sockets of the rear end face **173** into register with the aforementioned stops **162, 163** on the guide sleeve **16.** In other words, by changing the angular position of the control sleeve **17,** the operator can determine the extent to which the rear portion of the control sleeve can penetrate into the guide sleeve **16.** FIG. **3** indicates in phantom lines a fully retracted position of the control sleeve **17.** In such fully retracted position, the control sleeve **17** maintains its front end face behind the front end portion of the drive shaft **23** and a removable bit **23,** which is non-rotatably inserted into an axial blind bore in the front end face of the drive shaft **23,** extends forwardly through and beyond the outlet opening **184** of the receptacle **18** so that it can be readily grasped by two fingers and withdrawn from the blind bore of the drive shaft.

In the illustrated embodiment, the bit **28** has two suitably profiled end portions which enable it to extend into the recess provided in the head **119***a* of a recessed screw (Phillips); however, it is evident that the working ends of the bit **28** can be replaced by customary flat working ends which are utilized for driving home slotted head screws or analogous fasteners. The median portion of the bit **28** is of hexagonal cross sectional outline and is received in a complementary portion of the blind bore at the front end of the drive shaft **23.** This prevents the bit **28** from rotating relative to the drive shaft **23.** An advantage of a twin-headed bit **28** is that its useful life is twice the useful life of a single-headed bit. Furthermore, one working end of the bit **28** can be dimensioned to rotate recessed screws having recesses of a first size and the other working end can be designed to penetrate into recesses of a different second size.

The mounting of the helical screw **26** is preferably such that this screw stores energy when the control sleeve **17** is rotated counter to the direction of rotation of the drive shaft **23.** The stops **162, 163** are located diametrically opposite each other (see FIG. **5**) and have externally threaded portions **164** which extend into and through windows **101** provided therefor in the housing **10.** The portions **164** of the stops **162, 163** mesh with internal threads of an adjusting ring **29** which is rotatable on the housing **10.** Thus, by rotating the adjusting ring **29,** the operator can advance the guide sleeve **16** forwardly or rearwardly to thereby move the stops **162, 163** toward or away from the extension **11** of the body **12** of the power tool. In this way, the operator can determine the exact extent of lengthwise movement of the control sleeve **17** relative to the housing **10** and guide sleeve **16** and the extent to which the shank **119***b* of a properly inserted and oriented screw **119** can be propelled through and beyond the outlet opening **184** in response to rotation of the drive shaft **23.** As mentioned before, when the control sleeve **17** is moved to such angular position that the stops **162, 163** register with the deepmost sockets **24** of the rear end face **173,** the control sleeve **17** can be retracted into the housing **10** to such an extent that the bit **28** will extend forwardly through and beyond the outlet opening **184** of the receptacle **18** and can be readily engaged by fingers for complete extraction from the drive shaft **23,** for inversion or for replacement by a differently dimensioned bit. In some instances, the bit **28** can be replaced by a drill or any other insert which can be used for penetration into a material or for removal of material from a workpiece.

As shown in FIG. **1,** the external surface of the guide sleeve **16** is provided with a dial or scale **30** which is suitably graduated to indicate different extents of penetration of the shank of a fastener **119** into a workpiece. The housing **10** will expose or conceal successive graduations of the dial **30** in response to rotation of the adjusting ring **29.**

The aforementioned overload clutch between the output element **15** of the power tool and the drive shaft **23** is illustrated in FIG. **2.** This clutch comprises the aforementioned clutch housing or casing **27** which serves as a retainer for the rear end portion **262** of the helical spring **26.** The clutch further comprises a rotary internally threaded clutch element **31** which is threadedly connected to the output element **15** and the front end portion of which is provided with notches or recesses **32** for a coupling pin **33** which is secured to and extends diametrically of the rear end portion of the drive shaft **23.** A helical clutch spring **34** is inserted in prestressed condition between the rear end face of the drive shaft **23** and the front end face of the output element **15.** Thus, when no pressure is applied against the front working end of the bit **28,** the spring **34** expels the pin **33** from the adjacent notches **32** of the clutch element **31** so that the shaft **23** need not share rotary movement of the output element **15.**

It is clear that the housing **10** may constitute an integral part of a portable power tool and that the drive shaft **23** then receives torque directly from an electric or pneumatic motor in the body of the power tool by way of a suitable transmission or the like. Such modification of the illustrated device will be readily appreciated and understood by considering that the housing **10** shown in FIG. **2** may form an integral part of the clutch housing **12** and that the output element **15** may be made integral with the drive shaft **23.**

When the improved attachment is to be put to use, the operator inserts a fresh screw **19** into the chamber **183** of the receptacle **18.** To this end, the head **119***a* of the screw **119** is introduced through the lateral inlet opening **185** while the control sleeve **17** dwells in its foremost position so that the bit **28** is sufficiently re-

tracted to permit unimpeded insertion of the head **119***a* through the opening **185** and into the chamber **183** in front of the drive shaft **23**. The shank of the screw **119** is introduced laterally through the slot **186** of the receptacle **18** whereby the shank may but need not move the sections **181, 182** apart during introduction into the chamber **183**. The sections **181, 182** can yield radially in response to deformation of the respective leaf springs **20, 21**. Once the screw **119** is properly inserted into and oriented in the chamber **183**, the operator starts the prime mover which rotates the output element **15** and thereupon places the front end faces of the sections **181, 182** against the workpiece into which the screw **119** is to be driven. By thereupon pushing the housing **10** forwardly, the operator stresses the spring **26** which yields and allows the control sleeve **17** to penetrate deeper into the guide sleeve **16**. The front working end of the bit **28** finds its way into the recess in the head **119***a* of the screw **119** in the chamber **183** and begins to rotate the screw **119** whereby the shank **119***b* begins to penetrate into a material which is located in front of the end faces of the sections **181, 182**. The penetration of the shank **119***b* into such material is terminated when the rear end face **173** of the control sleeve **17** comes into abutment with the stops **162, 163** of the guide sleeve **16**. It will be seen that, by the simple expedient of changing the angular position of the adjusting ring **29**, the operator can determine the extent to which the shank of a screw in the receptacle **18** can penetrate into the material. When the rearward movement of the control sleeve **17** is terminated by the stops **162, 163**, the operator simply retracts the entire housing **10** in a direction away from the workpiece whereby the head **119***a* of the screw **119** moves the sections **181, 182** apart against the opposition of the leaf springs **20, 21** so that the receptacle **18** can be separated from the screw **119**. This terminates the operation and the attachment is ready for reception, orientation, and application of a second screw.

Since the receptacle **18** is provided with the aforementioned forwardly tapering slot **186**, it can receive relatively long or relatively short screws **119** with the same facility. Thus, if a relatively long screw **119** is inserted through the inlet opening **185** and slot **186**, the tip of such screw may extend forwardly through and beyond the outlet opening **183** even before the front end faces of sections **181, 182** are placed against a workpiece which is to receive the shank of the properly oriented screw. In some instances, it is sufficient to mount only one of the sections **181, 182** on an elastic element such as the leaf spring **20** or **21**. It is also within the purview of the invention to employ a modified receptacle with three or more radially movable sections.

The leaf springs **20** and **22** are properly protected because their major portions are confined within the control sleeve **17**. The slots or cutouts **171, 172** in the front part of the control sleeve **17** are dimensioned in such a way that they allow for requisite deformation of the leaf springs **20, 21** during movement ofthe head **119***a* of a screw through the chamber **183** and forwardly toward, through and beyond the outlet opening **184**.

Another important advantage of the improved device is that all sensitive parts are confined within the housing **10**, guide sleeve **16** and/or control sleeve **17**. These parts protect the sensitive elements against penetration of dirt or moisture as well as against escape of lubricant. This renders it possible to utilize the improved device in locations wherein the surrounding air contains large quantities of dust, moisture or other foreign matter, for example, at construction sites or the like.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features which fairly constitute essential characteristics of the generic and specific aspects of our contribution to the art, and therefore, such adaptations should and are intended to be comprehended within the meaning range of equivalence of the claims.

What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims:

1. In a device for applying screws or analogous threaded fasteners, a combination comprising a housing; a substantially sleeve-like control member reciprocable in said housing and having an exposed front end portion; a drive member rotatably mounted in said housing; a fastener-accommodating receptacle adjacent to said front end portion, reciprocable with said control member and including a plurality of sections at least one of which is movable substantially radially of said drive member toward and away from another section, said receptacle having an outlet opening for the tip of a fastener therein; means provided on said drive member for rotating a fastener in said receptacle; stop means provided in said housing to determine the extent of movement of said control member relative to said drive member and to thus determine the extent of penetration of a fastener in said receptacle beyond said outlet opening; guide means provided in said housing for said control member, said control member being turnable relative to said guide means about the axis of said drive member; and resilient means for biasing said control member to a predetermined angular position.

2. A combination as defined in claim **1**, further comprising adjusting means for moving said stop means substantially axially of said drive member.

3. A combination as defined in claim **1**, further comprising a portable power tool having a rotary output element, clamping means for separably securing said housing to said power tool, and clutch means for normally rotating said drive member in response to rotation of said output element.

4. A combination as defined in claim **1**, further comprising means for biasing said control member axially of said drive member in a direction to move said receptacle away from said housing.

5. In a device for applying screws or analogous threaded fasteners, a combination comprising a housing; a drive member rotatably mounted in said housing; a substantially sleeve-like control member reciprocable in said housing and having an exposed front end portion and a rear end portion having a plurality of surfaces located at different distances from said front end portion thereof; a fastener-accommodating receptacle adjacent to said front end portion, reciprocable with said control member and including a plurality of sections at least one of which is movable substantially radially of said drive member toward and away from another section, said receptacle having an outlet opening for the tip of a fastener therein; means provided on said drive member for rotating a fastener in said receptacle; stop means provided in said housing to determine the extent of movement of said control member relative to

said drive member and to thus determine the extent of penetration of a fastener in said receptacle beyond said outlet opening; and adjusting means for moving said stop means substantially axially of said drive member, said control member being turnable relative to the axis of said drive member to place a selected surface into register with said stop means.

6. In a device for applying screws or analogous threaded fasteners, a combination comprising a housing; a substantially sleeve-like control member reciprocable in said housing and having an exposed front end portion; a drive member rotatably mounted in said housing; a fastener-accommodating receptacle adjacent to said front end portion, reciprocable with said control member and including a plurality of sections at least one of which is movable substantially radially of said drive member toward and away from another section, said receptacle having an outlet opening for the tip of a fastener therein; means provided on said drive member for rotating a fastener in said receptacle; stop means provided in said housing to determine the extent of movement of said control member relative to said drive member and to thus determine the extent of penetration of a fastener in said receptacle beyond said outlet opening; a sleeve-like guide member provided in said housing, surrounding said control member and supporting said stop means; and adjusting means for moving said guide member and said stop means axially of said guide member.

7. A combination as defined in claim **6,** wherein said housing has window means and said stop means comprises external threads extending through said window means, and adjusting means comprising a ring mounted for rotation on said housing and having internal threads meshing with the external threads.

8. In a device for applying screws or analogous threaded fasteners, a combination comprising a housing; a drive member rotatably mounted in said housing; a substantially sleeve-like control member reciprocable in said housing and having an exposed front end portion and a rear end face provided with a plurality of axially extending sockets of different depths; a fastener-accommodating receptacle adjacent to said front end portion, reciprocable with said control member and including a plurality of sections at least one of which is movable substantially radially of said drive member toward and away from another section, said receptacle having an outlet opening for the tip of a fastener therein; means provided on said drive member for rotating a fastener in said receptacle; and stop means provided in said housing to determine the extent of movement of said control member relative to said drive member and to thus determine the extent of penetration of a fastener in said receptacle beyond said outlet opening, said control member being rotatable relative to said housing about the axis of said drive member to place a selected socket into register with said stop means.

9. A combination as defined in claim **8,** further comprising resilient means for biasing said control member to a predetermined angular position and for simultaneously biasing said control member in a direction to move said rear end portion thereof away from said stop means.

10. A combination as defined in claim **9,** wherein said resilient means comprises a helical spring surrounding said drive member and having first and second end portions respectively secured to said housing and to the front end portion of said control member.

11. A combination as defined in claim **8,** further comprising guide means for limiting the extent of angular movement of said control member relative to said housing and for guiding said control member during movement axially of said drive member.

12. A combination as defined in claim **11,** wherein said guide means comprises slot means provided in said control member and including first and second portions respectively extending axially and circumferentially of said guide member, and a guide pin secured to said housing and extending into said slot means.

13. A combination as defined in claim **1,** wherein said front end portion of said control member is roughened to facilitate the gripping of such front end portion by the hand.

14. A combination as defined in claim **1,** wherein said housing forms part of a portable power tool.

15. A combination as defined in claim **1,** wherein said means for rotating a fastener in said receptacle is separably secured to said drive member and is accessible from without in a predetermined axial position of said control member relative to said drive member.

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