June 20, 1939. L. C. STRINGER 2,163,070

REMOTE CONTROL DUAL BUTTON HAND SWITCH

Filed April 29, 1937

Fig. 1.

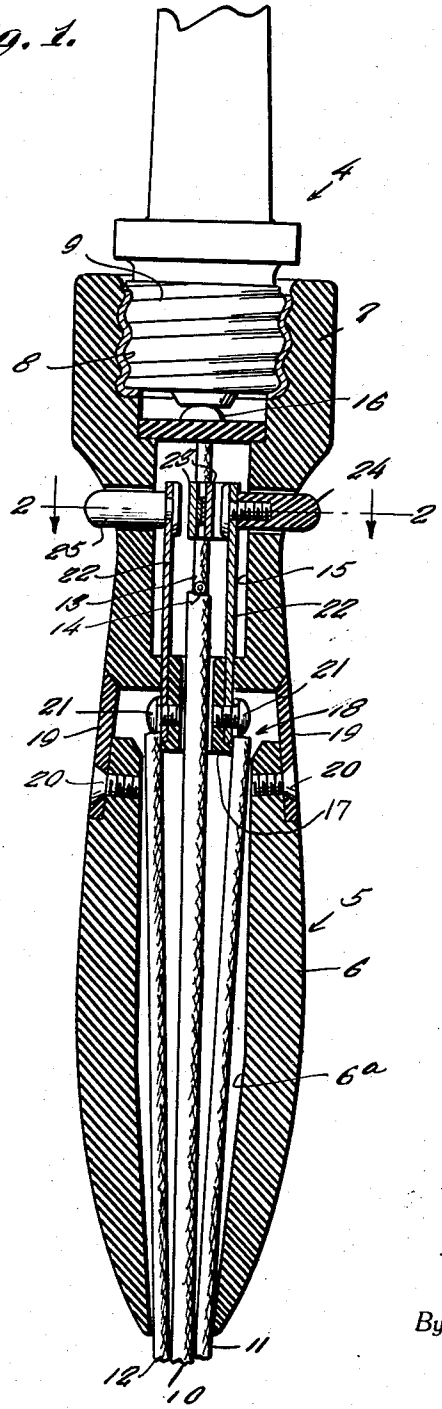
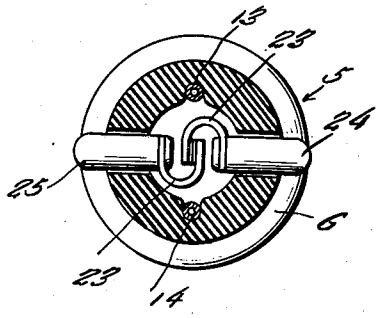


Fig. 2.



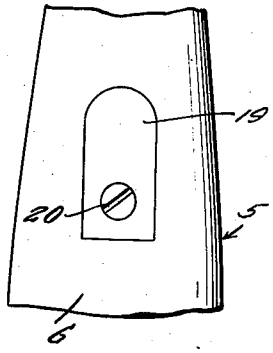


Fig. 3.

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REMOTE CONTROL DUAL BUTTON HAND SWITCH

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1 Claim. (Cl. 200—157)

The present invention relates to what is believed to be a unique tool holder having incorporated therein a sensitive conveniently located dual-type switch affording the user appreciable means to positively control the current at will.

Certain classes of precision work make it desirable to have the tool in the hand-grip type holder under constant control. For example, in the jewelry trade where drills and welding tools are employed for refined workmanship, it becomes necessary to instantly and momentarily throw the tool out of operation. It is desirable to do this, for instance, without bodily shifting the tool from the spot on which it has been focused or trained, allowing inspection to be made, after which the tool is again set into operation to operate on the same identical spot. If the hand is shifted it is sometimes difficult to re-locate the exact point being worked on.

It follows, therefore, that I have discovered the need for a tool holder having a circuit make and break device or switch embodied therein, whereby the tool may be thrown momentarily out of operation without shifting the position of the tool holder in relation to the work. In reducing to practice the principles of the present invention, I have evolved and produced an ingenious and simple switch construction enabling the desired results to be reliably and satisfactorily attained.

Other features and advantages of the invention will become more readily apparent from the following description and drawing.

In the drawing:

Figure 1 is a view partly in section and partly in elevation of a tool holder embodying a switch construction developed in accordance with my inventive ideas.

Figure 2 is a horizontal section on the plane of the line 2—2 of Figure 1.

Figure 3 is a fragmentary side elevational view observing Figure 1 in a direction from either right or left.

The holder for the electric tool **4** is unitarily denoted by the numeral **5**. It is preferably constructed from insulation material of appropriate texture and strength. The major or body portion is fashioned to provide a comfortable or convenient hand-grip **6**. The outer end is fashioned to form a socket **7**, this being lined with a screw-threaded shell **8** to accommodate the screw plug **9** on the shank of the tool. Incidentally, different types of tools are designed to fit into this holder, for example, drills, welding irons, and the like. In the construction of the body **5**, it is provided with a main longitudinal bore **6a** to accommodate the conductor wire **10** and the complemental circuit make and break or switch wires **11** and **12**. The positive and negative wire-ends **13** and **14** are arranged in grooves in the upper chamber **15**, where they are connected with the contact button **16** and shell **8**, respectively, thus supplying current to the tool **4** in a more or less conventional manner.

The numeral **17** designates an adapter neck projecting into the upper portion of the bore **6a**, and located in the chamber **18**. The chamber **18** is provided with diametrically opposite hand-holes with a removable cover plate **19** held in place by fastenings **20**.

The aforementioned wires **11** extend up through the bore **6a**, where they are connected with binding screws **21** accessible by way of the removable plates **19**, said binding screws serving to hold in place resilient or spring fingers **22**. On the upper ends of the fingers **22** are U-shaped contact clips **23** controlled by the duplicate simultaneously operable push buttons **24** and **25**, respectively. The inherent resiliency of the fingers **22** is such as to normally maintain the clips **23** in contact with each other, whereby to keep the current "on" until the buttons **24** and **25** are depressed or forced inwardly toward each other.

It is understood that in remote control electric tool holders of this type it is highly desirable to have a temporary cut-out built into the tool holder where it will be under constant control of the user. Moreover, in such an arrangement the current to the tool is regulated through a selector which (not shown) is located at the source of power (also not shown). The four wires **13**, **14**, and **11** and **12** are thus embodied in this power governed circuit feeding the tool **4**. Normally, the current is always "on." When, however, it is desired to momentarily throw it off, the dual control switch comes in handy for the purpose.

In practice, assuming that a precision job is being worked on and the tool **4** has been properly focused on the exact spot desired, it is undesirable to shift the hand or bodily move the tool or tool holder. At the same time, it is desirable to inspect the spot being worked on, thus making it necessary to throw the tool **4** out of operation for a moment. The provision of the two buttons **24** and **25** diametrically opposit each other puts one in the position to be pressed by the thumb and the other one by the index finger of the same hand. Consequently, by squeezing the button, the position of the hand does not have to be changed. At the same time, current can be cut

off for the moment and resumed at the discretion or will of the user.

It is thought that the description taken in connection with the drawing will enable a clear understanding of the invention to be had. Therefore, a more lengthy description is thought unnecessary.

While the preferred embodiment of the invention has been shown and described, it is to be understood that minor changes coming within the field of invention claimed may be resorted to if desired.

I claim:

In a remote control hand style electric tool holder of the class described, a hand grip longitudinally bored, a pair of resilient fingers mounted in said hand grip, current control wires connected with the respective fingers, said fingers being disposed in opposed parallelism, the inherent resiliency of the fingers serving to spread the same apart, a pair of substantially U-shaped contact clips on the free ends of said fingers, the clips being interlocked into normal contacting relationship, a pair of control finger buttons attached to the free ends of said fingers, said hand grip having passages therein for said buttons.

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