To all whom it may concern:

Be it known that I, Fred M. Slater, a citizen of the United States, residing at Easton, in the county of Northampton and State of Pennsylvania, have invented a certain new and useful Improvement in Handles for Stope Drills, of which the following is a specification.

This invention relates to an improved handle for a rock drill, more particularly a stope drill. The handle adapted to be grasped by the operator usually projects at one side of the tool and in the ordinary construction is fixed in position upon the machine, which has certain disadvantages in operation because the handle should be free and clear of the wall or face adjacent to the tool to permit rotation and owing to inequalities of surface and floor, or the nature of mine conditions under which the drilling is being performed, the operator is not always able to set up and adjust the stope drill in a convenient position for holding the handle. He may be forced to stand in such position that he cannot readily operate the handle, if the handle is fixed in one position on the tool incapable of change or adjustment. Furthermore, a right handed operator will usually want an adjustment of the tool and handle somewhat different from that wanted by a left handed operator.

The object of the present invention is to enable the operator, whether right or left handed or ambidextrous, to adjust the handle to suit himself and furthermore provide an adjustment to conform to mine conditions, without adjusting the entire tool. Further objects will hereinafter appear and a preferred form of the invention is shown in the accompanying drawings in which—

Figure 1 is a side elevation of a stope drill provided with my improved handle,

Figure 2 is an enlarged detail perspective view partly broken away, showing the handle construction, and

Figure 3 is a view similar to Figure 2 showing different positions of the handle.

Referring to the drawings A represents a rock drill, in this instance a stope drill having the cylinder casing B, drill bit C, the foot D, the feed cylinder E, and the other usual parts of such a tool, which will not be further described as they are unnecessary to an understanding of this invention.

The rotation handle F, instead of being non-adjustably secured to the machine as in the usual manner, forms a separate and independent member or part of the tool and is adapted to be adjusted on the tool in substantially any desired position to suit the operator and the conditions of his work.

In this instance the machine is provided with a boss or socket piece at G preferably having an opening H extending there through parallel to the axis of the tool and preferably tapered downwardly to receive the correspondingly tapered shank H’ of the handle F. The interior of the boss G is provided with longitudinal locking grooves J and the tapered shank H’ of the handle is provided with one or more locking keys or ribs K adapted to engage the different grooves J in accordance with the angular position in which the handle is inserted in the socket G as indicated in Figure 3.

The shank H’ of the handle may also have a reduced screw threaded portion L adapted to receive a locking nut O for holding the handle securely in the desired position. The tapering of the handle shank assists in ready adjustment and removal of the handle and forms a tight fit without sticking.

The adjustment of the handle is simple, convenient and secure. In addition to the advantages of adjustment mentioned, at different angles in the horizontal plane there are other advantages in my construction, because different handles for the same tool may be made interchangeable and if one is broken another may be quickly provided. For packing, shipment and transportation the handles may be removed and adjusted in position at the job.

I claim:

A rock drill casing provided with an integral boss at one side formed with a hollow interiorly longitudinally grooved tapered socket the axis of which extends substantially parallel to the axis of the machine, a handle having a substantially right angled bend near the inner end, the short
shank of the handle at the inner end being tapered to fit the tapered socket and having at least one key or rib to cooperate with the grooves in the socket, the extreme end of the shank being reduced and screw threaded, and a tightening nut for said reduced end, whereby the operator is enabled to adjust the handle on the machine as desired at different horizontal angles and lock it against turning in any of said positions. In testimony whereof, I have hereunto set my hand.

FRED M. SLATER.