B. C. WYSONG.

PROCESS OF AND DEVICE FOR REMOVING RIVET HEADS.

APPLICATION FILED SEPT. 28, 1920.

1,436,557.

Patented Nov. 21, 1922.

2 SHEETS—SHEET 1.

Fig. 1.

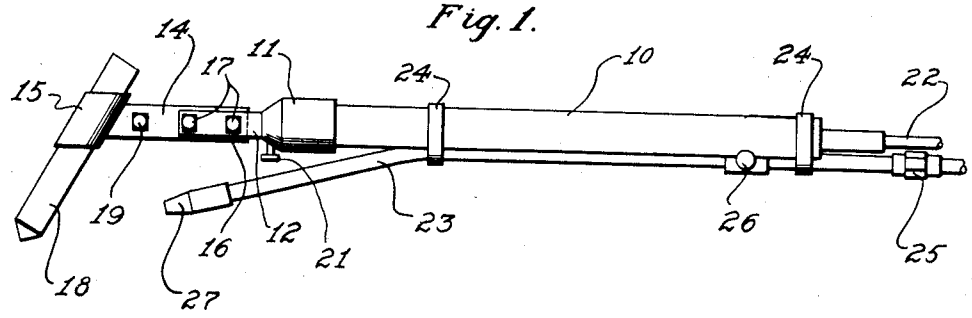
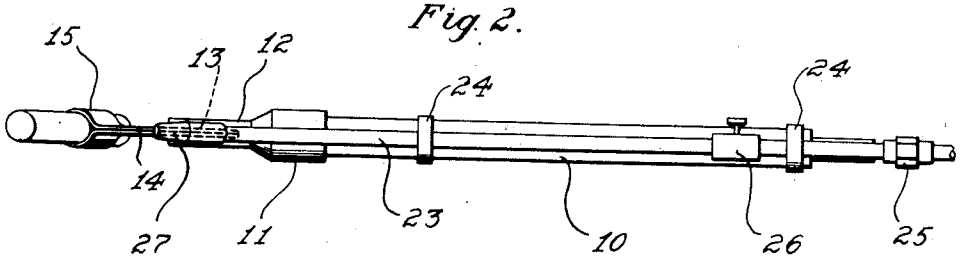


Fig. 2.



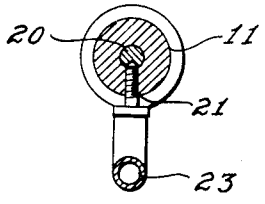


Fig. 6.

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2 SHEETS—SHEET 2.

Fig. 3.

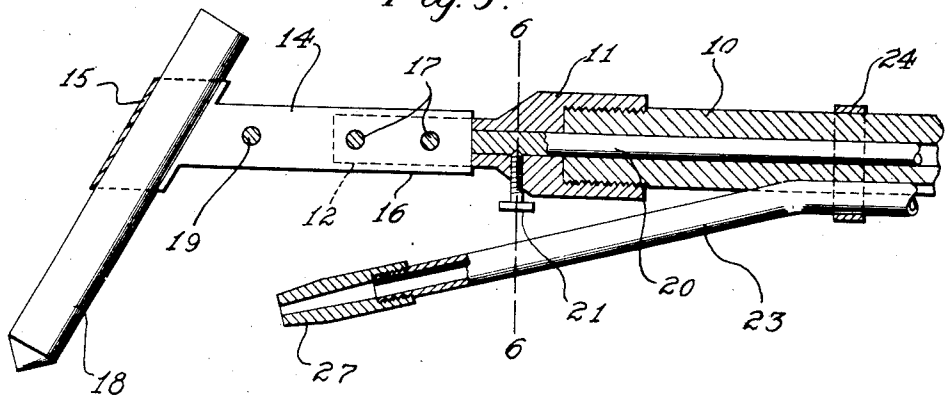
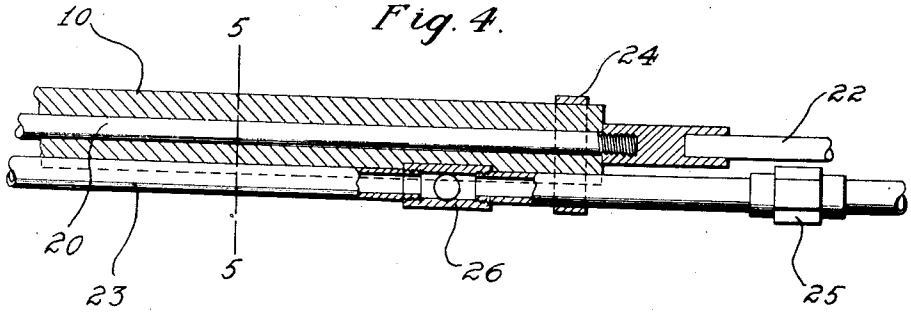


Fig. 4.



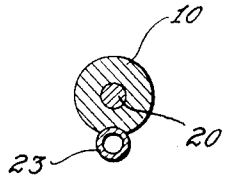


Fig. 5.

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UNITED STATES PATENT OFFICE.

BENNETT CLAY WYSONG, OF HUNTINGTON, WEST VIRGINIA, ASSIGNOR OF ONE-THIRD TO C. V. RATCLIFF AND ONE-THIRD TO J. B. CARTER, BOTH OF HUNTINGTON, WEST VIRGINIA.

PROCESS OF AND DEVICE FOR REMOVING RIVET HEADS.

Application filed September 28, 1920. Serial No. 413,413.

To all whom it may concern:

Be it known that I, BENNETT C. WYSONG, a citizen of the United States, residing at Huntington, in the county of Cabell and State of West Virginia, have invented new and useful Improvements in Processes of and Devices for Removing Rivet Heads, of which the following is a specification.

This invention relates to means for removing rivet heads and the like and has for one of its objects the provision of an electro-pneumatic device for this purpose including a contact adapted to form an electric arc with the work and further including an air blast pipe designed to deliver a very strong blast of air at or near the arc for the purpose of blowing away the metal when it is melted so as to prevent its welding onto the material.

Another object is the provision of an advantageous process of removing rivet heads.

A collateral object is the provision of a device of this character which will be simple and inexpensive in manufacture, highly efficient in use, durable in service, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed and illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of the device,

Figure 2 is an elevation at right angles to Figure 1,

Figure 3 is an enlarged longitudinal sectional view through one end portion of the device,

Figure 4 is a similar view through the other end portion.

Figure 5 is a cross sectional view on the line 5—5 of Figure 4, and

Figure 6 is a cross sectional view on the line 6—6 of Figure 3.

For the sake of clearness the process will be described in conjunction with the device illustrated in the drawings in which the numeral 10 designates the handle of the device which is of any suitable size and cross-sectional configuration and which is considerably elongated, and this handle is formed of suitable insulating material such as hard rubber, fiber, ebonite, or the like. Disposed at one end of the handle is a member 11 which terminates in a reduced extension 12 bifurcated as indicated at 13. Disposed within this bifurcation is a holder shown as formed of a strip of metal bent intermediate its ends to define a loop 15 and having its end portions 16 brought together and secured within the bifurcation by suitable bolts 17. The loop 15 is formed with its axis inclined with respect to the axis of the handle 10 and this loop is adapted to hold a carbon or similar electrode 18, the loop 15 being held in clamping engagement with the electrode by a bolt 19.

Extending longitudinally within the handle 10 is a rod 20 which is screwed into the member 11 and of course makes electrical connection with the electrode holder. An asbestos washer 21 surrounds this rod between the end of the handle and the member 11 to prevent burning the handle. Threaded onto the other end of this rod is a connector 22 connected with a wire 23 which leads from any suitable source of current, not shown.

Disposed alongside the handle 10 is an air conducting pipe 24 held associated with the handle by suitable bands 25 which in actual practice may be wire bent around and clinched. This pipe 24 extends beyond the rear end of the handle 10 and carries a suitable union 26 for connection with a compressed air pipe 27 leading from any suitable supply tank or the like. Intermediate its ends the pipe is provided with a control valve 28 of conventional pattern by means of which the flow of compressed air may be regulated. The other end of the pipe 24 is inclined away from the handle 10 and carries at its extremity a nozzle 29 which is directed toward the active end of the electrode 18.

In the operation of the device the source of current has one terminal connected with the work from which projects the rivet or the like to be cut off, the other terminal being connected with the rod 20. The operator uses the device by grasping it in his hand and disposing it so that the point of the electrode 18 will be spaced slightly from the rivet or bolt head to be removed whereupon the current will arc from the electrode 18 to the rivet head, resulting in melting of the rivet head. When the metal is melted the operator opens the valve or cock 28 to permit the compressed air to pass through the

pipe 24 and the jet of air issuing from the nozzle 29 will impinge against this molten metal and blow it off the work so as to prevent it from welding thereonto.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a simply constructed and consequently inexpensive device which will very efficiently operate to cut off or remove bolt or rivet heads and the like and which will efficiently perform all the functions for which it is intended.

While I have shown and described the preferred embodiment of my invention, it is of course to be understood that I reserve the right to make such changes in the form, construction, and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A device for removing rivet heads, comprising a handle, an electrode attached to said handle, a compressed air pipe also attached to the handle, the outlet nozzle of said pipe capable of being directed towards the electrode, the compressed air when released, serving to remove metal melted by the electrode.

2. The process of removing rivet heads which consists in reducing a rivet head to a molten state and then dissipating the molten metal by the action of fluid under pressure.

3. A device for removing rivet heads comprising a handle, means associated with said handle to reduce a rivet head to a molten state, and a valved conduit extraneous to said reducing means and having an outlet nozzle capable of being directed towards the reducing means to supply a head of fluid under pressure to remove the metal melted by the reducing means.

In testimony whereof I affix my signature.

BENNETT CLAY WYSONG.