A. G. ADELMAN. CHOKE BORE FORMING DEVICE.

(Application filed May 2, 1899.)

(No Model.) WITNESSES:

TINITED STATES PATENT OFFICE

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CHOKE-BORE-FORMING DEVICE.

SPECIFICATION forming part of Letters Patent No. 640,518, dated January 2, 1900.

Application filed May 2, 1899. Serial No. 715,365. (No model.)

To all whom it may concern:

Beit known that I, Alfred George Adel-Man, of Boise, in the county of Ada and State of Idaho, have invented a new and Improved 5 Choke-Bore-Forming Device, of which the following is a full, clear, and exact description.

My invention relates to an improvement in devices for producing the choke-bore in shot-guns, and comprises the novel features which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

rs Figure 1 is a longitudinal section of the device in use. Fig. 2 is a section taken on the line 2 2 of Fig. 1; and Fig. 3 is a detail view of a reamer which may be used in connection with my device for truing up the ends of gunzo barrels.

One manner in which the choke may be produced in gun-barrels is by the use of a die which surrounds the end of the barrel and to which sufficient pressure is applied to contract the diameter of the barrel, and thus to produce the required decrease in the diameter of the bore.

The object of my invention is to provide a portable device by which this work may be 30 done and which shall be rapid in its operation and cheap of manufacture.

The swaging-die D, which is used in connection with my device, consists of a short tube, which is tapering in its interior to cor-35 respond with the taper desired for the bore of the gun-barrel and is secured to or formed as a part of a base D', which is square in crosssection or of some other non-circular section, so that it may be placed within a socket and 40 held against turning. The base of this die is placed in a socket formed in a plate E, which has a rearward tubular extension E' surrounding the central rod B. The periphery of the plate E is toothed at e, as is clearly shown in 45 Figs. 1 and 2, so that it may be engaged and turned by a double-acting pawl f, mounted upon a lever F, said lever having a sleeve F' surrounding the tubular extension E' of the plate E. The die is held in place within the 50 socket in the plate E by means of a plate H, which is secured by any suitable means to the face of the plate E and extends over the base

of the die. The rear end of the tubular extension E' bears against a thrust-block I, which is screwed upon the rod B. This extension E' also enters a counterbore in the hub of the thrust-block I, which forms a sleeve I'. The tubular extension E' is also provided with holes g, adapted to receive the ends of bolts or set-screws G, by which the parts may be locked 60 together for an automatic feed or held together when not in use. The thrust-block I is provided with handles J, by means of which it may be turned, so as to feed the die upon the gun-barrel.

The rod B is provided with a sleeve B', located just inside of the muzzle of the gun-barrel and snugly fitting the same, forming a support for the rod. The rod extends throughout substantially the length of the gun-barrel and is screwed into a plug C, which snugly fits the cartridge-chamber at the breech of the gun-barrel. This plug also has a collar C', which bears against the end of the gun-barrel at the breech, and has a square extension 75 C², which may be engaged by a wrench.

In use the device is placed within a gunbarrel A, as shown in Fig. 1, and the thrust-block I screwed upon the rod B until the die D engages the muzzle of the barrel. The die 80 is rotated, being at the same time fed farther upon the gun-barrel until the required amount of choke has been given to the barrel. Dies D may be provided of such a size as to fit all the different gages of guns, and plugs C 85 of corresponding sizes are provided, so that the device may be used for any gage of gun. The device is also capable of use with gunbarrels of any length, as the rod B may be threaded throughout as large a portion of its 90 length as desired.

If it is desired to true up the muzzle of the gun before the choking operation is begun, this may be done by means of a reamer, such as is shown in Fig. 3, which is inserted in- 95 stead of the die D. This reamer, as herein shown, consists of a base L², which fits the socket in the base E and has a smooth conical plug L and a shoulder L'.

Having thus described my invention, I 100 claim as new and desire to secure by Letters Patent—

1. A choke-bore-forming device, comprising a swaging-die adapted to embrace the muzzle

end of the gun-barrel, a rod passing through the gun-barrel and having a rotative connection with the swaging-die, means for supporting the rod from the breech end of the gun-5 barrel, and means for turning the die.

2. A choke-bore-forming device, comprising a swaging-die adapted to embrace the muzzle end of a gun-barrel, a plug or cap entering the breech end of the gun-barrel, a rod adapted to ed to lie within the gun-barrel and engaging the plug and die, a thrust-block screwed upon the rod and supporting the die, and means for turning the die.

3. A choke-bore-forming device, comprising a swaging-die adapted to embrace the muzzle end of the gun-barrel, a plug or cap entering the breech end of the gun-barrel, a rod adapted to lie within the gun-barrel and connecting the plug and die, a thrust-block screwed upon the rod, a holder for the die having ratchet-teeth thereon, and a pawl and lever with which to rotate said holder and die.

4. A choke-bore-forming device, comprising a swaging-die adapted to embrace the muzzle end of a gun-barrel, a rod passing through

the gun-barrel and having a rotative connection with the swaging-die, means for supporting the rod from the breech end of the gunbarrel, and a lever with pawl-and-ratchet mechanism for turning said rod.

5. A choke-bore-forming device, comprising a swaging-die adapted to embrace the muzzle end of a gun-barrel, a plug or cap fitting within and engaging the breech end of the gun-barrel, a rod adapted to lie within the 35 gun-barrel and screwing within said plug, a thrust-block screwing upon the muzzle end of the rod outside the die, and independent means for turning both die and thrust-block.

6. A choke-bore-forming device, comprising 40 a swaging-die adapted to embrace the muzzle of the gun-barrel, means for supporting the end thrust thereof from the gun-barrel, and means for turning the die, substantially as described.

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Witnesses:

JAMES T. HOUSE, WILLIAM G. SCHULTZ.