C. D. WILSON.

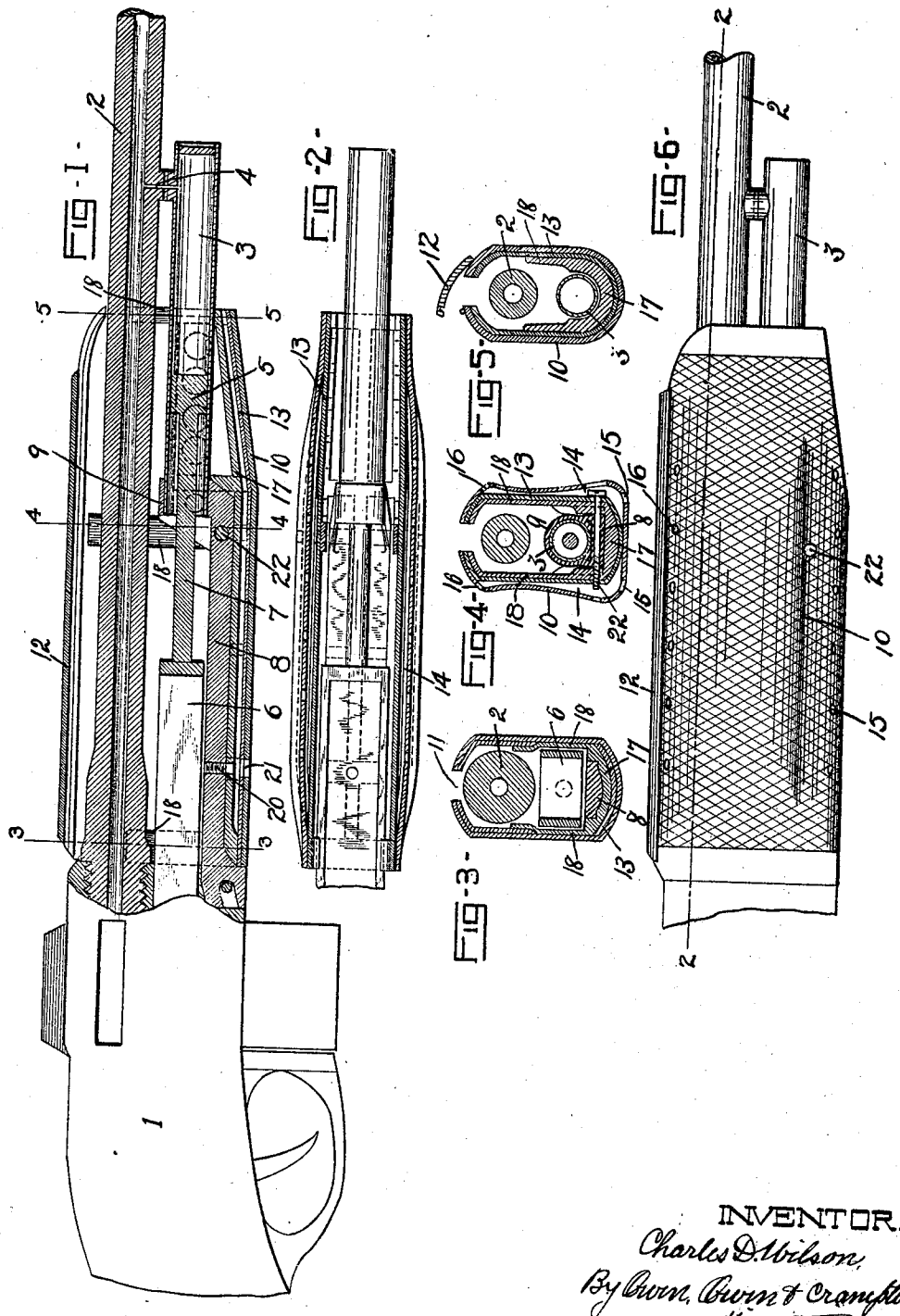
HAND GRIP FOR GUNS.

APPLICATION FILED JULY 26, 1918.

1,307,469.

Patented June 24, 1919.

2 SHEETS—SHEET 1.



INVENTOR.

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By Owen, Owen & Crampton,

His attys.

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2 SHEETS—SHEET 2.

FIG -7-

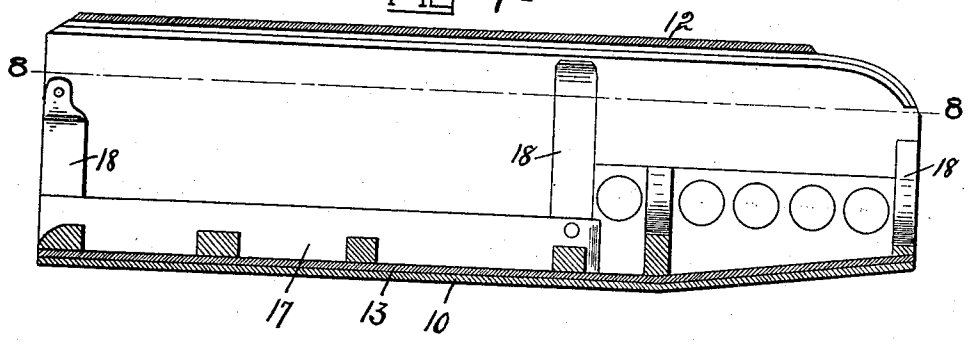


FIG -8-

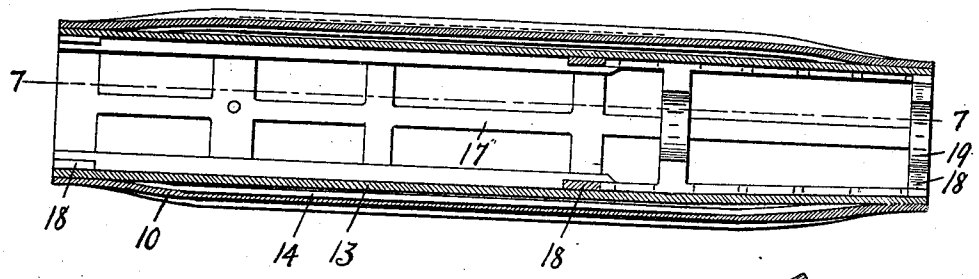
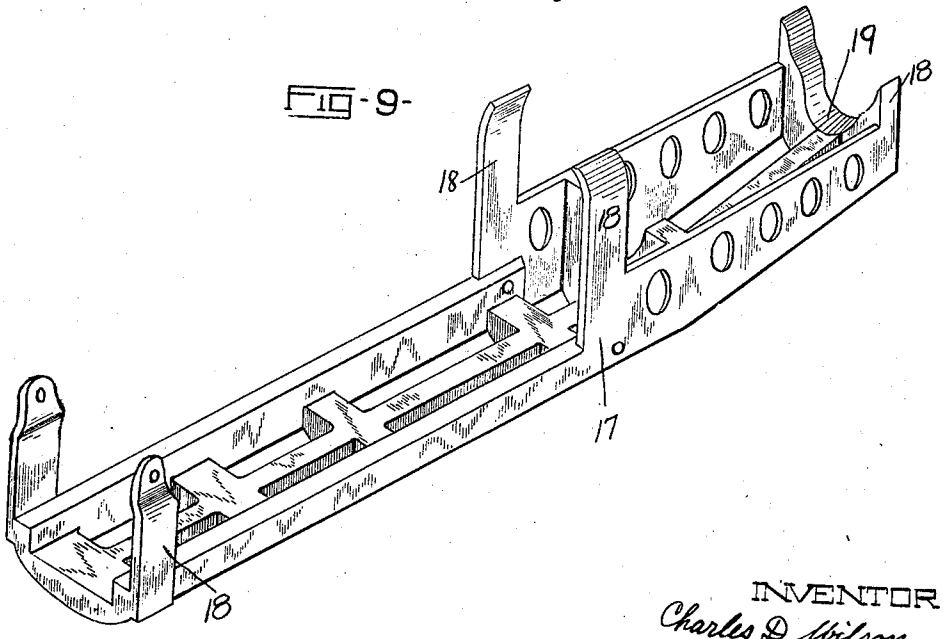


FIG -9-



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UNITED STATES PATENT OFFICE.

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HAND-GRIP FOR GUNS.

1,307,469. Specification of Letters Patent. Patented June 24, 1919.

Application filed July 26, 1918. Serial No. 246,881.

To all whom it may concern:

Be it known that I, CHARLES D. WILSON, a citizen of the United States, and a resident of Toledo, in the county of Lucas and State of Ohio, have invented a certain new and useful Hand-Grip for Guns; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention is particularly intended for use in connection with rapid fire guns of the Browning type but is not restricted to use in connection with such guns.

The object of my invention is the provision of a hand grip of the class described which is capable of being detachably mounted on the barrel and adjacent parts of a gun, which parts become highly heated during a firing of the gun, is light, strong and durable in its construction and is capable of being subjected to very high temperatures without injury to its parts.

A further and important feature of the invention is the provision of a hand grip of the class described which is adapted to inclose the action slide or plunger of guns of the Browning type in such manner that the rapid operating movements of the slide or plunger create a forced circulation of air through the hand grip to facilitate a cooling of both the grip and the heated parts which it embraces.

The invention is fully described in the following specification, and while, in its broader aspect, it is capable of embodiment in numerous forms, a preferred embodiment thereof is illustrated in the accompanying drawings, in which,—

Figure 1 is a side elevation of a portion of a gun of the Browning type with a hand grip embodying the invention mounted thereon and with said grip and the embraced portion of the gun in central vertical longitudinal section. Fig. 2 is a section on the line 2—2 in Fig. 6 with parts removed. Figs. 3, 4 and 5 are cross-sections on the lines 3—3, 4—4 and 5—5, respectively, in Fig. 1. Fig. 6 is a side elevation of the hand grip mounted on a gun with the latter only fragmentarily shown. Fig. 7 is a central vertical longitudinal section of the hand grip taken on the line 7—7 in Fig. 8. Fig. 8 is a horizontal longitudinal section thereof taken on the line 8—8 in Fig. 7, and Fig. 9 is a perspective view of the spider employed in the grip and forming a part thereof.

Referring to the drawings, 1 designates the stock and 2 the barrel of a rapid fire gun of the Browning type. 3 designates the gas cylinder thereof which is attached to the under side of the barrel and has its interior in connection with the bore of the barrel through a small passage 4. A plunger 5 operates in this cylinder and is connected with certain operative parts of the gun mechanism by a slide 6 which is connected to the plunger by a stem 7. A frame bar 8 is removably fixed to the stock 1 and extends forward therefrom and has its forward end provided with an offset portion 9 that is provided with an opening in which the rear end of the gas cylinder 3 is mounted. These parts are all common to the Browning gun and need not therefore be specifically described.

The hand grip embodying my invention is intended to embrace the rear end portion of the barrel 2 and the subjacent portions of the cylinder 3, slide 6 and frame bar 8 at the point where the gun is customarily gripped when in use or when being carried. This hand grip comprises an outer shell or casing 10 preferably of vulcanized or pressed sheet fiber which is shaped to adapt it to be slipped longitudinally over the barrel 2, cylinder 3 and frame bar 8 with its rear end in abutment with the stock and a shouldered portion of the frame bar 8 and with its forward end contracted to fit more or less closely around said barrel and cylinder, the shell being in practice preferably 8 or 10 inches long. Such length, however, is not important to the invention and may be varied as desired.

The shell 10 in cross-section is substantially U-shape in form with its terminal edge portions turned inward over the upper portion of the barrel in spaced relation thereto and preferably terminating in spaced relation to each other to form the longitudinal top opening 11. This opening may be closed by a cover strip 12 of similar material which, in the present instance, is shown as being hinged at one edge to the inwardly turned top portion of one side of

the shell and as having a snap socket at its other edge for engagement with a snap stud on the other inturned top portion of the shell. (See Fig. 5.)

The shell 10 is provided with a lining 13 preferably of the same material as the shell and which extends from one end to the other thereof. The shell preferably fits closely to the lining at its ends and along its top edges at both sides of the opening 11 and has its side portions bulged outward with respect to the lining to near each end thereof so as to provide an air circulating space 14 between the side portions of the shell and lining intermediate their ends, as shown in Figs. 2, 4 and 8. Air is permitted to circulate upward through the space 14 by reason of the provision of sets of inlet and outlet openings 15 and 16 in the shell at the respective lower and upper edges thereof. It is preferable to slightly contract the bulged side portions of the shell above the lower edges thereof to better facilitate a firm gripping of the shell by the hand of the operator.

A reinforcing spider or skeleton frame 17 is mounted within the base portion of the lining, extending from one end to the other thereof and has fingers or extensions 18 extending at intervals upward from its sides and in bracing contact with the inner sides of the lining. The forward end of this spider fits up closely against the cylinder 3, being provided with a seat or depression 19 for such cylinder, and a considerable portion of its rear end is longitudinally recessed to adapt it to receive and fit up closely against the under side of the frame bar 8, the spider being secured to said frame bar, in the present instance, by a screw 20 which is introduced through a registering opening 21 in the bottom of the shell and lining and also by a cross screw or bolt 22. The interior of the hand grip is open at its ends to the atmosphere and the spider 17 provides spaces at its ends between it and the barrel to permit the longitudinal circulation of air through the lining 13 and around the heated parts inclosed by the grip. This circulation is facilitated or is rather of a forced nature by reason of the rapid reciprocation of the plunger 5 and slide 6 within the grip during an operation of the gun, it being understood that at each explosion a portion of the created gas in the gun barrel enters the cylinder 3 in advance of the plunger 5 to drive such plunger rearward. It is found in practice that a considerable current of air is created longitudinally through the grip by the pumping action of the plunger and its slide.

It is evident that my hand grip may be easily and quickly attached to or removed from a gun and that the circulation of air within the lining and also within the space 14 between the sides of the shell and lining not only facilitate a cooling of the inclosed gun parts but also effects a cooling of the grip so that the operator can hold the gun through the medium of the grip without liability of burning his hands.

I wish it understood that my invention is not limited to any specific construction, arrangement or form of the parts as it is capable of numerous modifications and changes without departing from the spirit of the claims.

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

1. A hand grip of the class described comprising a shell open at its ends and top, a lining for said shell spaced from the side portions thereof intermediate its ends to form air passages, said shell having inlet and outlet openings to said passages which are open at top and bottom to the atmosphere, and a cover movably carried by the shell for closing the top opening.

2. A hand grip of the class described comprising a shell of heat insulating material open at its ends and top to provide an air circulating passage therethrough, and a cover movably carried by the shell for closing the top opening thereof.

3. A hand grip of the class described, comprising a shell of heat insulating material open at its ends, and a lining therefor of heat insulating material open at its ends and coöperating with the shell to form air spaces between the sides of the lining and shell, which spaces are open to the atmosphere to provide air circulation therethrough.

4. A hand grip of the class described, a shell of heat insulating material open at its ends, and a lining of vulcanized fiber open at its ends and coöperating with the shell to form air spaces between the sides of the lining and shell which spaces are open to the atmosphere to provide air circulation therethrough.

5. A hand grip of the class described comprising inner and outer shells of vulcanized fiber having portions spaced to form air passages therebetween and provided with communication between said passages and the atmosphere, said shells coöperating to form a hand grip which is open at its ends to permit air circulation therethrough.

6. A hand grip for guns comprising a shell of substantially U-form in cross-section, a lining of heat insulating material for said shell spaced therefrom except at its ends and edge portions to form air spaces between the shell and lining at the sides thereof, said spaces being open to the atmosphere at top and bottom, and said shell having its side portions inwardly depressed above its lower edges to facilitate a firm hand gripping thereof.

7. A hand grip for guns comprising an inner shell of heat insulating material above its ends and substantially U-shape in cross-section with its terminal edges turned inwardly toward each other and terminating in spaced relation, and an outer shell of heat insulating material mounted on said inner shell and coöperating therewith to form air circulating spaces between the walls of the two shells which spaces are open to the atmosphere.

8. The combination with a gun having a gas operated action slide at one side of its barrel, of a hand grip for embracing a part of the gun barrel and slide, said grip comprising inner and outer shells of vulcanized fiber open at their ends to the atmosphere to permit a circulation of air to be pumped therethrough by the action of said slide, and the two shells coöperating to form air circulating spaces between portions thereof which spaces are open to the atmosphere.

9. A hand grip of the class described comprising a shell of heat insulating material substantially U-shape in cross-section and open at its ends, a lining for said shell cooperating therewith to form air spaces between the sides of the lining and shell which spaces are open to the atmosphere, and a skeleton frame mounted within the bottom portion of said shell.

10. A hand grip of the class described comprising a shell of vulcanized fiber board, a lining disposed within said shell, said lining and shell being adapted to receive a portion of a gun and to form an air circulating space therearound, the sides of said shell being bulged outwardly from said lining to form a hand grip having protuberant edge portions, said shell being provided with inlet and outlet openings to said air spaces, and a frame disposed within a portion of said shell and extending substantially from one end to the other thereof.

In testimony whereof, I have hereunto signed my name to this specification.

CHARLES D. WILSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."