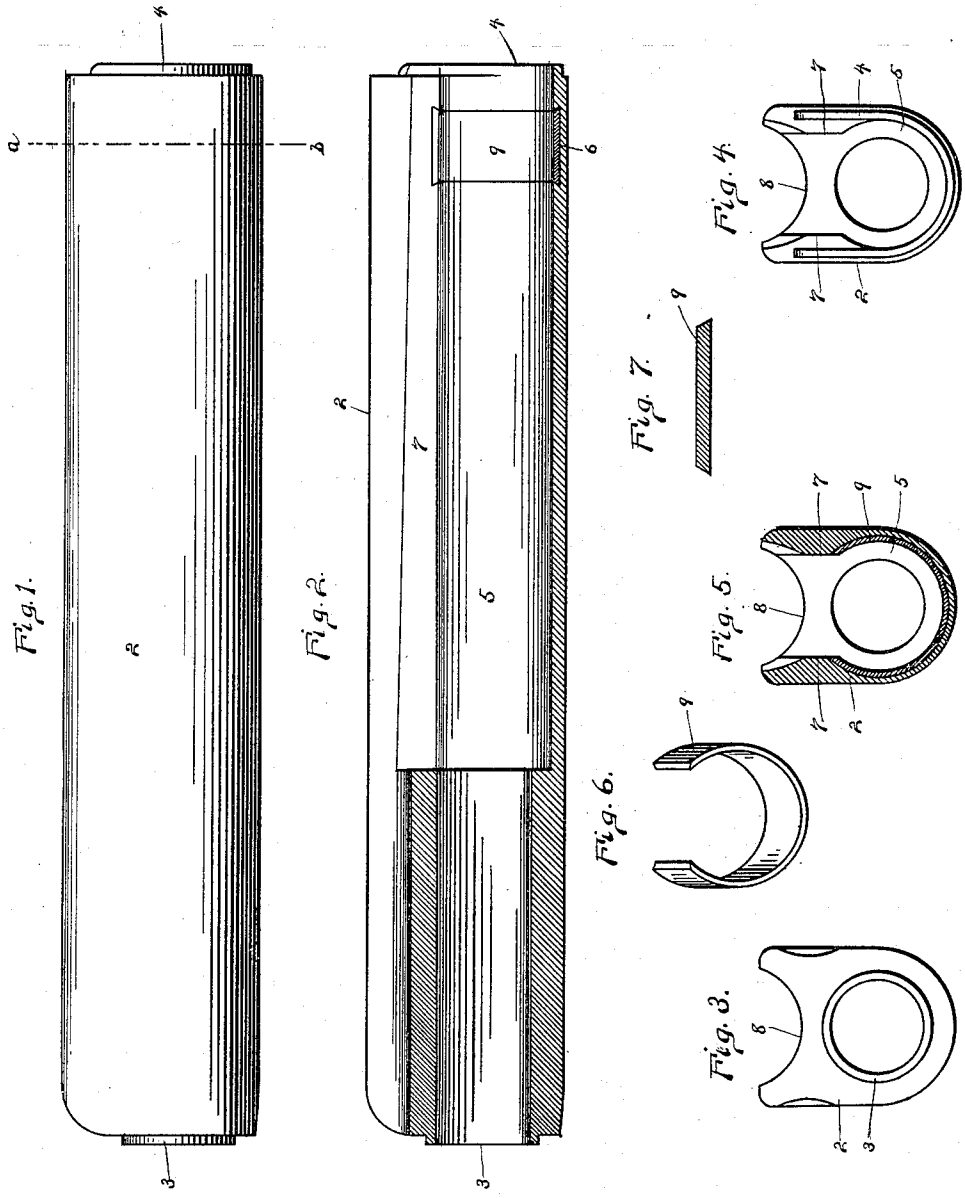
T. C. JOHNSON.

WOODEN FORE ARM FOR AUTOMATIC FIREARMS.

APPLICATION FILED MAY 31, 1911. RENEWED FEB. 13, 1912.

1,037,486. Patented Sept. 3, 1912.



Witnesses
M. P. Nichols.
C. L. Reed

Inventor
Thomas C. Johnson
by Symmons & Carey
Frederic C. Carey
Atty

UNITED STATES PATENT OFFICE.

THOMAS C. JOHNSON, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

WOODEN FORE-ARM FOR AUTOMATIC FIREARMS.

1,037,486. Specification of Letters Patent. Patented Sept. 3, 1912.

Application filed May 31, 1911, Serial No. 630,542. Renewed February 13, 1912. Serial No. 677,386.

To all whom it may concern:

Be it known that I, THOMAS C. JOHNSON, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Wooden Fore-Arms for Automatic Firearms; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a detached view in side elevation of a forearm constructed in accordance with my invention. Fig. 2 a view thereof in longitudinal section. Fig. 3 a view of the forearm in front elevation. Fig. 4 a view thereof in rear elevation. Fig. 5 a view thereof in transverse section on the line *a*—*b* of Fig. 1, looking forward. Fig. 6 a detached perspective view of the reinforce-strip. Fig. 7 a detached enlarged view thereof in cross-section.

My invention relates to an improvement in wooden forearms for automatic firearms, the object being to enable small and shapely forearms to be used notwithstanding the tremendous shocks to which they are subjected in quick succession by the automatic firing of the arm, tending to split the wood, particularly when made of the thinness required for compactness and shapeliness.

With these ends in view my invention consists in a one-piece chambered wooden forearm formed within its rear end with a transversely arranged wide dovetail groove receiving a reinforce strip of different wood from the forearm itself, made with the grain of the wood running with its length and having its edges beveled to enter the undercut edges of the said dovetail groove.

In carrying out my invention as herein shown, I employ a forearm 2 made of a single piece of wood such as walnut, the grain of which runs with the length of the forearm. This forearm is formed at its forward end with an integral tenon 3, at its rear end with an integral tenon 4, and has a chamber 5 for the reception of the tubular magazine and other parts not shown. Within its rear end the said forearm 2 is formed with a wide transversely arranged dovetail groove 6 cut about half way through the thickness of the forearm, its ends terminating in the shoulders 7 formed between the said chamber 5, and the semi-circular groove 8 formed along the upper edge of the arm for the reception of the lower face of the gun-barrel. Into this wide dovetail groove 6 I introduce a reinforce strip 9 made of some exceedingly tough wood like rock elm or hickory, having its edges beveled to fit into the undercut side walls of the groove in which it is secured by glue. This reinforce strip 9 is formed with its length running with the grain of the wood so that the grain of the reinforce strip when in position is at right angles with the grain of the wood of the forearm 2.

I may prefer to locate the reinforce strip midway the length of the forearm, or I may locate such a reinforce strip in the middle and at each end of the forearm, or only at the ends of the forearm; but I prefer to at least employ one at the rear end of the forearm.

By the use of such a reinforce strip, I am enabled to make the forearms of automatic firearms much thinner than would otherwise be possible, since the strip prevents the wood from splitting. The reduction of the forearm in thickness is particularly important at present owing to the relatively large size of the tubular magazines now employed in shot guns.

I claim:—

As a new article of manufacture, a chambered forearm for automatic firearms, fashioned from a single piece of wood with the grain running with its length and formed with a transversely arranged wide dovetail groove located within it and receiving a

wooden reinforce strip having its ends beveled to fit into the said groove and made of a tough wood the grain of which runs with its length, whereby the forearm may be made with relatively thin walls and still withstand the repeated shocks of firing the gun.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

THOMAS C. JOHNSON.

Witnesses:
FREDERIC C. EARLE,
CLARA L. WEED.

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