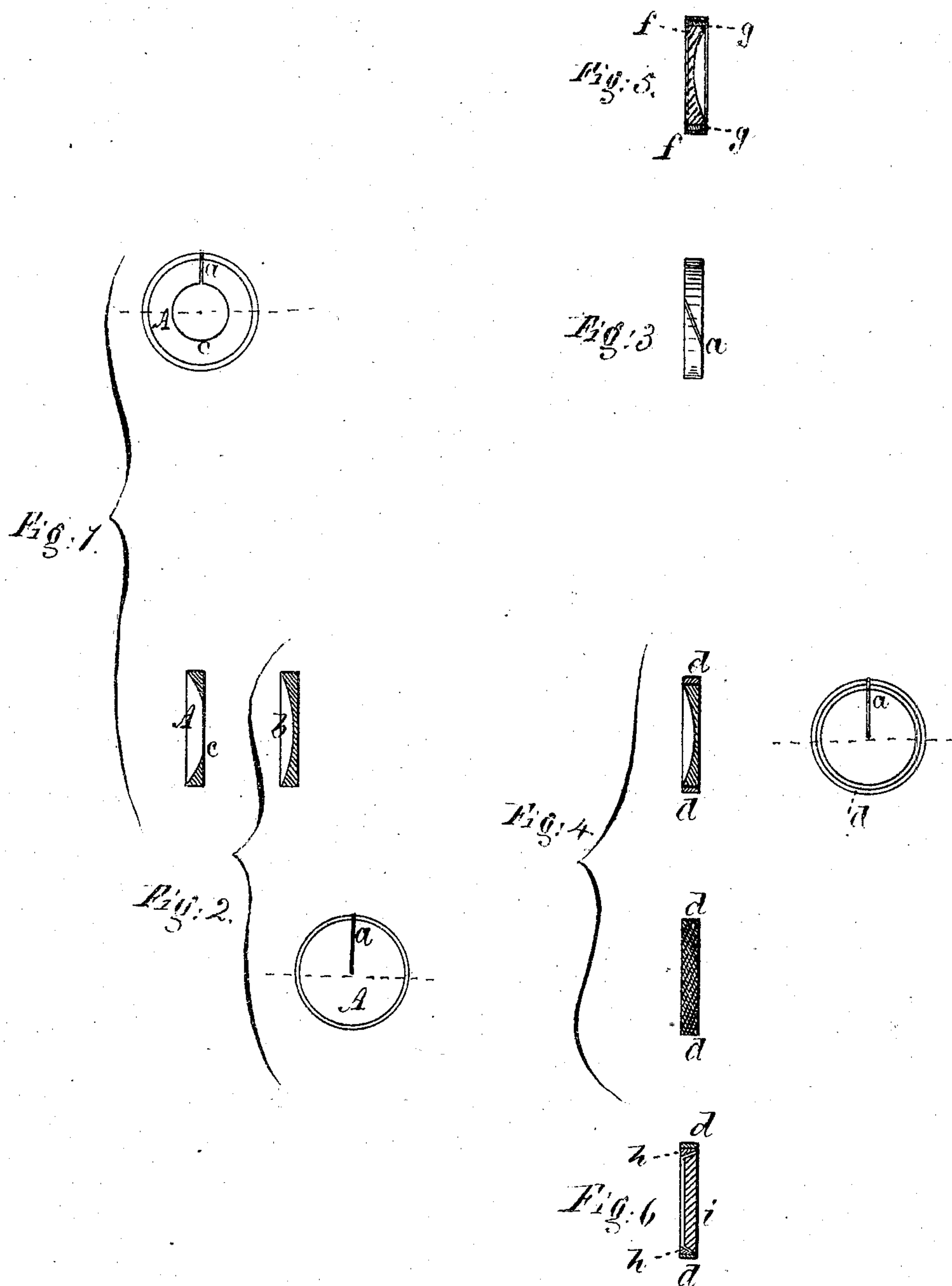


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Improvement in Lubricating-Wad for Fire-Arms.

No. 126,615.

Patented May 7, 1872.



Witnesses
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IMPROVEMENT IN LUBRICATING-WADS FOR FIRE-ARMS.

Specification forming part of Letters Patent No. 126,615, dated May 7, 1872.

Be it known that I, STEPHEN W. WOOD, of Cornwall, county of Orange, and State of New York, have invented an Improved Cleaning and Lubricating Wad for Fire-Arms; and I hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification—

Figure 1 being a rear view and section of one form of the improved wad; Fig. 2, a rear view and section of a modification thereof; Fig. 3, a side view of a modification of the same; Fig. 4, a rear view, side view, and section of the wad provided with a patch surrounding its periphery; Fig. 5, a modification thereof; Fig. 6, another modification of the wad in section.

Like letters indicate corresponding parts in all the figures.

The nature of my invention consists in so constructing a wad for fire-arms, as hereinafter described, that it may expand under the action of the exploding powder in the discharge, and in providing it with a lubricating substance, so that, in pressing against the inside or bore of the barrel, it may serve to clean and lubricate the same, substantially as herein specified.

The wad A is made of wood, *papier-maché*, or other similar rigid non-metallic material, to maintain its form under the discharge of the powder, and is provided with a cut or slit, *a*, so that it may expand under the pressure of the gases against the inside of the gun-barrel, and adapt itself thereto, without splitting or breaking. The rod may be provided with more than one cut or slit, *a*, radially, or from the periphery toward the center, if deemed expedient, to provide for the required expansibility in the the various materials of which it may be made. The lubricating material (plumbago preferred) is applied on or at the periphery of the wad, so that it will rub off in passing through the gun-barrel and lubricate it.

The several modifications represented in the drawing fulfill the purpose set forth above. Thus, in Fig. 1 the wad is hollowed out at the rear, the cavity extending through its thickness in the middle, so as to form a central hole, *c*. A single cut, *A*, is here represented in the wad,

as well as in all the other figures given in the drawing as modifications. In Fig. 2 the rear central cavity does not extend through the wad; otherwise it is the same as Fig. 1. In Fig. 3 the cut or division *a*, instead of being parallel with the axis of the cylinder, is oblique, so as to form an inclined lap of the adjacent edges and completely close the cut *a* at the discharge of the arm, however much may be the expansion of the wad. Fig. 4 shows a patch, *d*, around the periphery of the wad. This peripheral patch, being soft and fibrous, or porous, contains the lubricating substance, and is well suited to clean the bore of the barrel. It is applicable to all forms of the wad. In Fig. 5 the plumbago or other lubricating material *f* is held around the periphery of the wad by a covering or wrapper, *g*, of paper or other material, which will give way at the discharge and allow the lubricating material to come in contact with the surface of the gun-barrel. In Fig. 6 the wad is composed of two pieces, *h i*, the outer piece *h* having a conical opening in the middle, and the inner piece *i* having a conical periphery to fit the said conical opening in the rear side of the outer piece or ring, so that the force of the powder will drive it forward, thus expanding the ring against the bore of the gun-barrel.

This wad may be used either in fixed or metallic ammunition, or with loose powder and ball or shot.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The expansible cleaning and lubricating wad of wood, *papier maché*, or similar non-metallic material for cartridges and fire-arms, herein described, provided with one or more cuts in its body toward or to its center, for the purpose of allowing it to expand, substantially as herein specified.

2. The expansible cleaning and lubricating wad for cartridges and fire-arms, above claimed, having a patch or wrapper around its periphery for holding the lubricating substance, substantially as herein specified.

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Witnesses:

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