No. 768,835. Patented August 30, 1904.

UNITED STATES PATENT OFFICE.

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ALKALINE LUBRICANT FOR OILING GUNS.

SPECIFICATION forming part of Letters Patent No. 768,835, dated August 30, 1904.

Application filed September 22, 1903. Serial No. 174,205. (No specimens.)

To all whom it may concern:

Be it known that I, JOSEPH G. WILD, of New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Alkaline Lubricants for Oiling Guns; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to an improvement in that class of oils or lubricants used on guns, the object being to produce a non-aqueous lubricant which shall neutralize the acid residues left after firing smokeless powders, and so prevent rusting or corrosion.

With these ends in view my invention consists in a non-aqueous alkaline hydrocarbon lubricant.

My invention further consists in certain details, as will be hereinafter explained, and pointed out in the claims.

In carrying out my invention I employ a fixed or non-volatile hydrocarbon lubricant, such as vaseline or some other mineral oil. To render this alkaline, I introduce into it an alkali, such as ammonia, which might be replaced by some other alkali, such as caustic soda or caustic potash. If ammonia is employed as the alkali, I shall preferably use an alcohol solvent for it, such as glycerin, which may be replaced by some other alcohol or even by some non-alcoholic solvent, such as aldehyde, ketone, or quinon.

While I do not limit myself to any particular way of making my improved alkaline lubricant, I have secured excellent results by passing ammonia-gas into commercial glycerin. Then when the glycerin has become strongly charged with the ammonia-gas, whether to the point of saturation or otherwise, the ammoniacal glycerin is mixed with a hydrocarbon lubricant in the proportion of one part of the ammoniacal glycerin to five parts of the vaseline, though these proportions may be varied according to the strength and character of the ingredients and to the way in which the completed lubricant is to be used. Ordinarily the alkaline lubricant thus produced will be used in the same way that any lubricant or gun-oil is used. In case the gun has been fired with smokeless powder and then oiled the acid residues remaining on the surfaces of the gun will be so completely neutralized by the alkaline character of the lubricant that there will be none of that rusting or corrosion which results when a gun is fired with smokeless powder and then oiled by the use of the ordinary lubricants, which will not prevent corrosion or rusting, because they do not neutralize the acid residues remaining on the surface of the gun after it has been fired with smokeless powder.

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

1. A non-aqueous alkaline lubricant for neutralizing the acid residues left on the surfaces of guns after firing smokeless powder in them and so preventing corrosion and rust, the said lubricant having an alkaline reaction and consisting of a fixed hydrocarbon lubricant mixed with an alcohol saturated with ammonia which is retained in the solution through the presence of the alcohol.

2. A non-aqueous alkaline lubricant for neutralizing the acid residues left on the surfaces of guns after firing smokeless powder in them and so preventing corrosion and rust, the said non-aqueous lubricant consisting of a hydrocarbon lubricant mixed with glycerin charged with ammonia-gas which is retained in the solution through the presence of the glycerin.

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

JOSEPH G. WILD.

Witnesses:
THOMAS C. JOHNSON,
DANIEL H. VEADER.