UNITED STATES PATENT OFFICE.

FRITZ VOGEL, OF COLOGNE, PRUSSIA, GERMANY.

FATTY COMPOUND FOR WIRE-DRAWING.

SPECIFICATION forming part of Letters Patent No. 390,269, dated October 2, 1888.

Application filed March 8, 1888. Serial No. 266,592. (No specimens.) Patented in Austria Hungary June 24, 1886, No. 4,204 and No. 29,543.

To all whom it may concern:

Be it known that I, FRITZ VOGEL, of Cologne, Germany, have invented certain new and useful Improvements in a Fatty Compound Soluble and Divisible in Water, intended to be used in Drawing Wire, (for which a patent has been granted to me in Austria-Hungary, No. 4,204 and No. 29,543, dated June 24, 1886,) of which the following is a specification.

If a suitable quantity of sulphuric acid having the proper degree of concentration be added to and stirred with molten tallow a stiff mass is produced when cooled. To this mass I add from one hundred and fifty to two hundred per cent. of water and continue stirring, whereby the mass, which has thinned down, will again become stiff after a certain time. The compound thus obtained is particularly suitable for making baths for the so-called "web drawing" of iron wires and others. If put in water at a temperature of, say, 40° centigrade, a milky acid liquid is formed, in which the solid parts of fat of the tallow during the drawing operation remain suspended in very fine particles. The liquid fat remains also mostly divided in the bath and adheres more or less to the particles of solid fat. According to the nature or quality of the tallow used, or according to the mixture of different kinds of tallow, or according also to the desired consistency and acidity of the compound to be made, I vary the proportions of the constitutive elements and incorporate more or less concentrated sulphuric acid with the tallow at a higher or lower temperature.

For making a compound having the consistency of soft soap, applicable for the purpose herein intended, I have found the following proportions to give good results, viz: Fifty parts, by weight, of sheep-tallow; forty-eight parts, by weight, of ox-tallow; two parts, by weight, of stag-tallow; ten parts, by weight, of sulphuric acid, (sixty to sixty-five per cent.,) and one hundred and fifty to two hundred parts of water.

The stirring of the tallow with the acid is effected at a temperature of, say, 70° centigrade, while the water is subsequently added at the ordinary temperature.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim, and desire to secure by Letters Patent of the United States, is—

The herein-described fatty compound, soluble and divisible in water, intended for drawing wire, composed substantially of one hundred parts, by weight, of tallow, (or of different kinds of tallow,) ten parts, by weight, of sulphuric acid, more or less concentrated, as desired, and one hundred and fifty parts, by weight, of water, more or less, according to whether the compound is required to be more or less consistent.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FRITZ VOGEL.

Witnesses:

GUSTAVE ALBERT OELRICHS,

G. ADOLF HARDT.