

UNITED STATES PATENT OFFICE.

GUY SMITH, OF GIRARD, OHIO.

TANNING AND TAWING COMPOUND.

SPECIFICATION forming part of Letters Patent No. 744,252, dated November 17, 1903.

Application filed June 16, 1903. Serial No. 161,699. (No specimens.)

To all whom it may concern:

Be it known that I, GUY SMITH, a citizen of the United States, residing at Girard, in the county of Trumbull and State of Ohio, have
5 invented certain new and useful Improvements in Tanning and Tawing Compounds; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to
10 which it appertains to make and use the same.

My invention is an improved compound for tanning and tawing leather; and it consists of water, chrome-alum, an alkali, protosulfate of iron, and chlorid of sodium, substantially in the proportions hereinafter specified.
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In the preparation of my tanning and tawing compound I employ water, three gallons; chrome-alum, ten pounds; carbonate of soda or other soluble alkali in corresponding proportion, two pounds; protosulfate of iron, (copperas,) one ounce; chlorid of sodium, two pounds. These ingredients are compounded as follows: The chrome-alum is first dissolved in the water. The carbonate of soda or
25 other suitable alkali is then added slowly, the above-named ingredients being thoroughly stirred and then left to stand and settle for twenty-four hours. I then dissolve the protosulfate of iron in one-half pint of
30 water and add this to the compound of water, chrome-alum, and carbonate of soda, the same being then thoroughly stirred. I then add the chlorid of sodium. After standing for about twenty-four hours the compound is
35 then ready for use.

I use the ordinary chrome-alum, carbonate of soda, and protosulfate of iron of commerce in the form of crystalline salts.

Five gallons of my improved compound are
40 used with one hundred gallons of water for

tanning and tawing leather. The compound is preferably placed in the water from time to time in quantities of one-half gallon each time until the five gallons of the compound have been added to the water.

Leather which has been tanned or tawed by my improved compound is waterproof and may be boiled without injury thereto. The leather thus tanned is exceedingly strong, and the tanning is very quickly accomplished.
50 Calfskins and the like may be tanned by my improved compound in about five hours at the cost of one cent per skin, and heavy hides, suitable for harness, machine-belt, and the like, may be tanned by the use of my improved compound in from ten to twelve hours at a cost of about twenty-five cents per hide.

My improved compound may be used for tanning all kinds of leather, and the leather tanned thereby does not shrink nor stretch.
60 Having thus fully described my compound, what I claim as new, and desire to secure by Letters Patent, is—

1. A tanning and tawing compound consisting of water, chrome-alum, and an alkali, protosulfate of iron and chlorid of sodium, substantially in the proportions specified.
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2. A tanning and tawing compound, consisting of water, chrome-alum, carbonate of soda, protosulfate of iron, and chlorid of sodium, substantially in the proportions specified.
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In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GUY SMITH.

Witnesses:

WARNER CARLTON,
C. D. GOODRICH.