

UNITED STATES PATENT OFFICE.

ANDREW DIETZ, OF NEW YORK, N. Y.

IMPROVEMENT IN THE TREATMENT OF TANNED LEATHER.

Specification forming part of Letters Patent No. **30,393**, dated October 16, 1860.

To all whom it may concern:

Be it known that I, ANDREW DIETZ, of the city and State of New York, have invented or discovered a new and useful method or process of aiding the tanning of skins, or of treating them during the process of tanning or of finishing skins in the manufacture of leather, so as to preserve them and render them more durable and valuable; and I do hereby declare that the following is a full, clear, and exact description thereof and of its mode of operation.

Leather, when tanned by any of the ordinary methods or processes, has a tendency, after it is tanned, and particularly when put into use, to become hard, dry, and more or less brittle, by which both its strength and value are impaired.

My discovery consists in applying to leather, during the process of tanning or after it has been tanned, a material or preparation which imparts suppleness to the leather, makes it soft and pliable, prevents it becoming hard, dry, and brittle, and by causing it to remain soft and pliable gives it greater strength and durability.

My discovery or new method of treatment may be applied to the best advantage during the last stages of the process of tanning or while the skin is being curried, but may be made use of and applied after the leather has been tanned and curried.

When used and applied before the leather is curried and while it is being curried the process of treatment is substantially as follows: After the skin is taken from the tanning-liquors it is hung up to drain and partially to dry, and when about two-thirds dry is spread upon any suitable table or platform, and is then covered and rubbed with honey mixed with water, in about the proportion of four ounces of honey to a half-pint of water. It is deemed preferable that this should be applied to the grained surface of the skin after it is shaved and scoured and before it is stuffed, but may be applied to the other side or to both sides, and at any time. The skin is then again hung up to dry, and when dry is ready for the currying. For an ordinary calf-skin I usually apply about one-fourth of a pound of honey, and to other skins in proportion. For the heavier skins, or when it is desired to make the leather very soft, the honey may be applied more than once.

When this process of treatment is used upon or applied to leather already tanned after the usual modes, the leather is first to be soaked in water sufficiently long to swell and loosen the tissues, and so that the honey may enter into and be incorporated with the tissues of the skin and produce its desired effect. Under this treatment the hardest sole-leather, least fitted for being worked, is made as pliable as the best tanned; and the thinner skins of an ordinary character are made equal to those tanned and curried in the very best manner. The honey acts to give suppleness to the leather and keeps it soft and pliable, and thus prevents it becoming hard, dry, and brittle, and at the same time gives more body and strength to the leather; and not only does it give suppleness and softness to the leather when it is first applied, but, the honey being of a nature to retain under all conditions of the atmosphere a certain quantity of moisture, it has the effect of permanently giving to the skin or leather a soft and pliable character, which will remain in the leather, and which cannot be removed by long and repeated immersions in water; and it is believed that the honey not only gives and secures softness and pliability to the leather, but also makes a union with the gelatine of the skin and assists more or less in tanning or preserving the fiber of the skin and leather.

I prefer to make use of the above treatment in connection with my improved process of tanning by the use of saline substances with tanning-liquors of different strengths; but, as before stated, it may be used advantageously with any system or process of tanning, or may be applied and made use of after the leather is already tanned.

I do not claim generally the use of saccharine matters in the tanning of leather, as such have been used in various ways; but

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

The use and application of honey in the tanning or treatment of leather during the last stages of the process of tanning, or in the finishing of leather, or after the leather is tanned and finished, as set forth.

A. DIETZ.

Witnesses:

S. D. LAW,
HOWARD BIRD.