

# UNITED STATES PATENT OFFICE.

CARL E. SCHMIDT, OF DETROIT, MICHIGAN.

## TREATED LEATHER.

997,513.

Specification of Letters Patent.

Patented July 11, 1911.

No Drawing.

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*To all whom it may concern:*

Be it known that I, CARL E. SCHMIDT, who am a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Compounds for Treated Leather, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same.

This invention relates to treated leather, and has for its object an improved article which, as an incident to its preparation, is impregnated with a compound, which, while in no way injuring it either as to finish or lasting qualities, contains a normally latent indicating element, which, when touched with an external body, preferably porous, such as blotting paper, which has been saturated with a chemical reagent to the latent indicating element, causes a change in the color thereof, such as from white to pink, thereby proving that the leather has been treated by a certain process, whose products have attained an enviable reputation for their wearing qualities.

A well-known compound for treating leather, previous to its manufacture into shoes and the like, consists of approximately equal parts of white of egg, albumen, gelatin, and gum tragacanth. The proportions may be varied to accord with the exact finish that it is desired to impart to the leather; and similarly for some one or the other of said above named constituents, Irish moss, glue and gelatin, blood, milk, or casein may be substituted; all of these are well known. Shellac is also frequently used. When, however, a particular combination of such elements has resulted in imparting a particular quality to leather, upon which a manufacturer has succeeded in building up a considerable trade, and which he has particularly designated heretofore by stamping on one face of the leather, it has been necessary, in order to determine whether the leather of a shoe is of that particular make, as may be claimed, to partly turn it inside out, and partly cut it open as regards its lining.

I have discovered that if a small proportion, say one per cent. or less, of phenolphthalein be added to the compound of several other parts, chosen from those above named, either when the leather is first coated or treated and as a part of the coating com-

pound, or after a compound of already well known parts is applied, as a separate application, very preferably, however, when the leather is first treated, the finish imparted to the leather is not only desirable, but the entire surface of the leather acquires the quality of responding chemically when touched with, for instance, a piece of white blotting paper which has been saturated with an alkaline solution, preferably ammonia, by causing the same to turn pink. No bad effect is produced by thus touching the leather. If, however, the leather as finished does not contain this phenolphthalein or some such equivalent therefor as methyloange, Congo red, or litmus, no coloring effect would be produced on the blotting paper, and the spurious character of the leather would be thus established.

As stated, I do not desire to confine myself to exact proportions, nor merely to the use of phenolphthalein as the impregnating agent for the leather, nor to ammonia as the impregnating agent for the testing blotter, in fact, with some of the equivalent substances for phenolphthalein, I have found that an acid may be acceptably used instead of ammonia to saturate the testing blotter.

What I claim is:—

1. As a new article of manufacture, leather impregnated with a solution of already known finishing substances, and a desired proportion of a latent impregnating medium having the quality of combining with an alkaline solution, with which an external carrying body brought into contact therewith is saturated, to cause a change of color thereof, substantially as described.

2. As a new article of manufacture, leather impregnated with a combination of substances which not only give to it the desired finish, but also impart to it the quality of chemically indicating the application of a chosen testing agent by causing a change in the color thereof when brought into contact with the leather, substantially as described.

3. As a new article of manufacture, leather impregnated with a plurality of albuminous elements in desired proportions, gum tragacanth, and phenolphthalein, whereby the color of an alkaline saturated article brought into contact therewith is caused to change, without permanent effect upon the leather, substantially as described.

4. As a new article of manufacture,



leather impregnated with already known finishing substances and a commingled indicating compound which remains latent in the leather until the same is brought into  
5 contact with a body carrying a chemical reagent, and which then indicates its presence in the leather, by causing a change in the color of said saturated carrying body, substantially as described.

10 5. As a new article of manufacture, leather impregnated with a plurality of albuminous elements and a commingled latent indicating element, whose presence therein is indicated by the change in color imparted  
15 to a body carrying a reagent to said indicating element brought into contact with the leather, substantially as described.

20 6. As a new article of manufacture, leather impregnated with a commingled solution of known finishing elements and a latent indicating element adapted to indicate its presence in the leather by causing a color change in an article saturated with a chemically reagent element which is brought  
25 into contact therewith, substantially as described.

7. An article of manufacture, comprising leather impregnated with a compound of known finishing substances and a normally latent indicating medium adapted to indicate its presence in the leather, when touched  
30 with a body saturated with a selected chemical reagent, by causing a change in the color of that part of the saturated body brought into contact with the leather, substantially  
35 as described.

8. An article of manufacture, comprising leather impregnated with a plurality of albuminous elements and a commingled quantity of phenolphthalein, said phenolphthalein being normally latent therein, and  
40 being adapted to make its presence known by causing a change in the color of a foreign body saturated with an alkaline solution when the same is brought into contact  
45 therewith, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

CARL E. SCHMIDT.

Witnesses:

VIRGINIA C. SPRATT,  
WILLIAM M. SWAN.