

UNITED STATES PATENT OFFICE.

FRANK J. BLAIN, OF CINCINNATI, OHIO, AND EVERETT RARDON, OF NEW-
PORT, KENTUCKY.

PROCESS OF PREVENTING TARNISHING IN SILVER-WARE.

SPECIFICATION forming part of Letters Patent No. 312,954, dated February 24, 1885.

Application filed May 10, 1884. (No specimens.)

To all whom it may concern:

Be it known that we, FRANK J. BLAIN and
EVERETT RARDON, both citizens of the United
States, the former residing at Cincinnati, in
the county of Hamilton and State of Ohio,
and the latter residing at Newport, in the
county of Campbell and State of Kentucky,
have invented certain new and useful Improve-
ments in Paper and other Wrapping Process
for Preventing Tarnishing, of which the fol-
lowing is a specification.

The object of our invention is to prevent
metals from becoming tarnished or discolored
by the action of sulphureted-hydrogen gas,
which floats in the atmosphere.

Manufacturers and dealers in solid and plated
wares experience great difficulty, especially
with silver and brass wares, from the metals
turning black or becoming tarnished by the
action of sulphureted-hydrogen gas floating
in the atmosphere. Bronze and brass metals
also tarnish from the same cause. We have
discovered a remedy for this difficulty. It
consists, first, in providing a wrapping for
the metal wares dipped in a solution of metal
salts, which metals have a greater affinity for
the sulphureted-hydrogen gas than the met-
als to be preserved.

The preferred plan of employing our inven-
tion is as follows: Take fine tissue-paper and
dip it in a solution of acetate of lead dissolved
in water. One dram of lead to one ounce of
water is the preferred strength of solution.
Then the paper is dried, when it may be
wrapped around the wares or goods to be pre-
served. The sulphureted-hydrogen gas is ab-
sorbed or unites with the salts of lead, and
does not attack the finer metals to which the
wrapping is applied. After a long period of
time, however, the paper turns black, and a
new wrapping is of course required.

Instead of using paper, any other fibrous

wrapping material—such as paper-muslin—
may be employed; but the tissue-paper is the
cheapest and best.

If the wares are desired to be kept exposed
in a cabinet or closed case or upon a side-
board, large rolls, bales, or bundles of the pa-
per treated in the solution of salts may be
placed in close proximity to the metal. Or
thin paper-muslin may be treated with the
solution and used as a lining for the shelves
or cabinet-case surrounding, but at some little
distance from the wares.

The affinity of the salts for the sulphureted-
hydrogen gas is so great that it will be at-
tracted by the salts upon the surface of the
preserving material, and will not unite with
the finer metal. By this means we avoid the
use of all alkalies and chlorines, which are apt
to deleteriously affect the silver. The acetates
of lead, when dissolved and absorbed by
fibrous material, will neutralize not only hy-
dro-sulphuric gases, but phosphoric and other
similar gases, which pervade the atmosphere
in towns and cities. These acetates are much
more durable than chloride and alkaline salts
hitherto employed for this purpose, and we
disclaim the use of such preparations.

What we claim is—

The herein-described process of preserving
silver from tarnishing, which consists in wrap-
ping or surrounding the wares with fibrous
material impregnated with a solution of the
acetates of lead dissolved in water, substan-
tially as herein specified.

In testimony whereof we have hereunto set
our hands.

FRANK J. BLAIN.
EVERETT RARDON.

Witnesses:

ANDREW E. SCOTT,
A. GLUCHOWSKY.