

(No Model.)

J. L. COVEL.
MATERIAL FOR COVERING PIPES, &c.

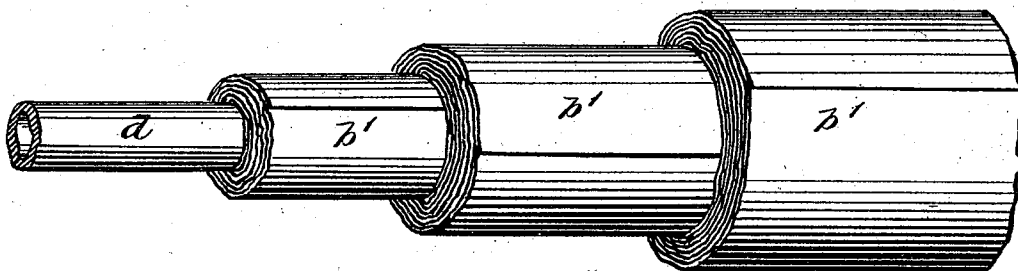
No. 491,836.

Patented Feb. 14, 1893.

Fig. 1



Fig. 2



WITNESSES:

C. Neveu
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UNITED STATES PATENT OFFICE.

JAMES LUCAS COVEL, OF NAPLES, NEW YORK.

MATERIAL FOR COVERING PIPES, &c.

SPECIFICATION forming part of Letters Patent No. 491,836, dated February 14, 1893.

Application filed October 15, 1892. Serial No. 448,931. (No specimens.)

To all whom it may concern:

Be it known that I, JAMES LUCAS COVEL, of Naples, in the county of Ontario and State of New York, have invented a new and Improved
5 Composition of Matter, of which the following is a full, clear, and exact description.

The object of the invention is to provide a composition for treating paper and rendering it suitable for a pipe covering, refrigerator
10 lining and roofing material.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate
15 corresponding parts in both the figures.

Figure 1 represents an edge view of a sheet of paper having the compound applied to it; and Fig. 2 is a longitudinal view of a piece of piping with a succession of layers of the prepared paper, broken away, as applied thereto.

20 The compound with which I prepare the paper consists of the following ingredients combined in or about the proportions stated, namely:—Best wheat flour two pounds, pulverized alum two ounces, arsenic one-fourth ounce, red lead one ounce, litharge one ounce,
25 beef gall one-fourth ounce, the whole to be mixed with one gallon of water.

In the preparation of the compound, I first dissolve the alum, arsenic, and beef gall in the
30 water; then mix dry the flour, red lead and litharge, adding a small quantity of the water containing the alum, arsenic and beef gall, from time to time until a smooth paste-like mass is obtained, after which I add the balance
35 of said water and stir until the whole is well mixed. I then boil the mixture with steam or otherwise, when it is ready for use. The compound is applied with a flat brush to the paper to be treated, and as many coatings of
40 the same as required applied to the paper. When dry the new material or prepared paper is at once formed; when applied to cold surfaces it takes longer to dry than when applied to hot surfaces. When paper thus prepared
45 with the compound is applied to steam or hot water pipes, it effectually retains the heat and

prevents radiation from the pipes and condensation within them, thereby making the pipes better capable of conducting the steam or hot water long or short distances without
50 loss of heat, and so saving fuel. Also when applied to pipes for conveying cold water, it better retains the temperature of the water and prevents the latter from freezing. Likewise with the proper paper and compound a
55 series of air spaces can be formed around the pipe, one around the other and thus making the covering more effectual.

Fig. 1 of the drawings shows the paper *b* with the compound applied to its surface; and
60 Fig. 2 shows the prepared paper in a series or succession of any number of sheets or layers *b'* wound and secured around a pipe *d*, each one outside the other, thus making a series of coverings in preference to a single one, where-
65 by the pipe will be better protected according to conditions and exposure of the pipe.

Paper prepared or coated with my special compound will, when applied to metal surfaces, prevent them from rusting and add to
70 the strength and durability of the articles it is applied to, and thereby often prevent accidents. By reason of the special compound, a thinner covering of the prepared paper will suffice. Such prepared or coated paper too
75 may be used to advantage as a lining for refrigerators and as a substitute for iron, tin, slate or shingles in roofing and for other like purposes.

Having thus fully described my invention
80 I claim as new, and desire to secure by Letters Patent:—

The herein described composition of matter for coating or preparing paper, consisting of wheat flour, pulverized alum, arsenic, red-
85 lead, litharge, beef gall and water, combined essentially as herein set forth.

JAMES LUCAS COVEL.

Witnesses:

EDMUND C. CLARK,
CYRILLO S. SNICEH.