

# UNITED STATES PATENT OFFICE.

D. AUSTIN BROWN, OF BOSTON, MASSACHUSETTS.

## FIRE-PROOF PAPER.

SPECIFICATION forming part of Letters Patent No. 296,722, dated April 15, 1884.

Application filed October 6, 1883. (No specimens.)

*To all whom it may concern:*

Be it known that I, D. AUSTIN BROWN, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Fire-Proof Paper, of which the following description is a specification.

This invention has for its object the production of a fire-proof paper for various uses in the arts.

10 My invention consists in a paper composed, essentially, of asbestos and infusorial earth, it being a new article of manufacture.

15 I take about forty parts, in bulk, of fine or disintegrated asbestos fiber, and about sixty parts of what is known as "infusorial earth" and place them, in a dry state, in an ordinary paper-pulp-beating engine, and then add sufficient water while the machine is in operation to beat the mass into a pulp just thin enough  
20 to flow out upon an ordinary wire cylinder, such as used in the manufacture of paper from wood or rags, where the pulp is formed into a web. The web is taken from the cylinder and finished in the usual manner, or as paper-board is finished. The asbestos fiber is long  
25 enough to give strength and elasticity to the paper, and the infusorial earth, which is a good non-conductor of heat and fire-proof, forms a filler or padding, the two adhering  
30 together strongly and forming a flexible paper, which may be used wherever ordinary paper-board is employed, it differing, however, from ordinary board in being fire-proof.

The infusorial earth should be calcined before use to free it from impurities not fire-proof. 35

If desired, and in some instances I shall add a small quantity of lime, starch, or other cementitious substance.

I am aware that asbestos has been used in paper, and also that a plastic cement has been employed containing asbestos and infusorial earth; but I am not aware that infusorial earth has ever been added to asbestos to thus form a paper all the materials of which are fire-proof and non-conductive of heat, thus forming merchantable sheets for fire-proof purposes—sheets which may be handled and cut and shaped for the particular use desired, as can ordinary paper. 40 45

The proportion of asbestos and infusorial earth may be varied without departing from my invention; but the proportions stated are, I believe, the best. 50

I claim—

55 As an improved article of manufacture, a fire-proof or non-conducting paper composed of asbestos and infusorial earth, substantially as herein described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses. 60

D. AUSTIN BROWN.

Witnesses:

G. W. GREGORY,  
W. H. SIGSTON.