

R. W. STILWELL.
Paper Stove-Platform.

No. 217,301.

Patented July 8, 1879.

Fig. 2.

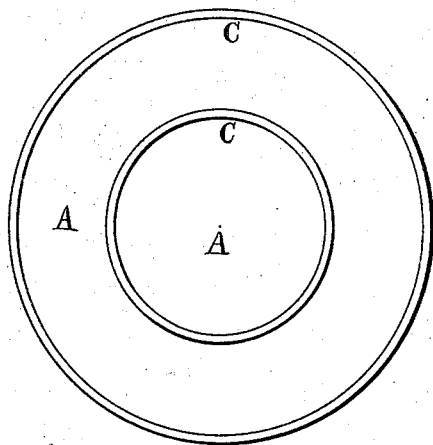


Fig. 1.

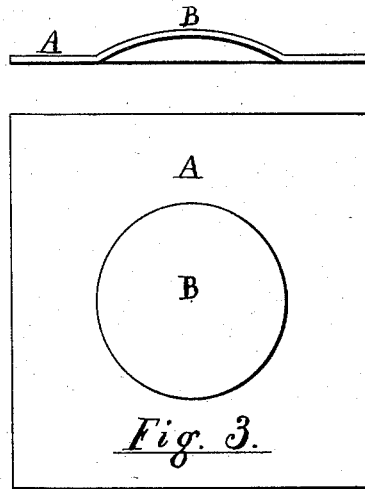
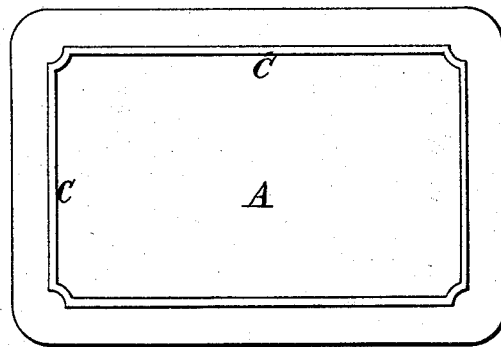


Fig. 3.

Fig. 4.



Attest:

Geo. H. Bodenschatz
E. P. Roberts.

Inventor.

R. W. Stillwell, per
Thos. S. Crane, Atty.

UNITED STATES PATENT OFFICE.

RANDOLPH W. STILWELL, OF CALDWELL, NEW JERSEY.

IMPROVEMENT IN PAPER STOVE-PLATFORMS.

Specification forming part of Letters Patent No. **217,301**, dated July 8, 1879; application filed September 21, 1878.

To all whom it may concern:

Be it known that I, RANDOLPH W. STILWELL, of Caldwell, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Stove-Platforms, which improvement is fully described in the following specification.

My invention consists in making stove-platforms of paper impregnated with ingredients adapted to render the same fire-proof, thus obtaining the security afforded by the use of metal, as heretofore, and greatly diminishing the cost of the article.

The paper being a non-conductor of heat, and the mineral ingredients united with it increasing this quality to a certain extent, the material is admirably adapted for the purpose specified, while its cheapness and the facility with which it can be molded to any desired form render it the most economical substance that can be applied to this manufacture and possess the security desired from ignition by heat or accidental contact with burning coals.

The most effectual mode of making the paper stove-platforms fire-proof is to impregnate the substance of the paper with suitable ingredients; and I find a variety of processes may be used for this purpose, among others subjecting the paper first to a bath containing common salt and water, and subsequently to a bath containing phosphate of soda in solution.

The paper may also be rendered fire-proof by saturating its fibers with solutions of borax, alum, and muriate of ammonia. The paper is then partially dried and subjected to pressure between dies of the proper shape to procure the desired form. The platforms are then dried and the surface painted, after which they are baked in an oven at 300° Fahrenheit of temperature to expel the oil or vehicle of the paint, and are then water-proof on the surface, so that they may be repeatedly washed or scrubbed by a brush without injury. If a finer style of finish is required, a coat of japan, in any color desired, may be applied over the paint and baked on the surface in the usual manner, gilding and decorating in various styles being applied before the baking, by which means they are hardened, so as to stand wear like japanned articles of metal. Such

platforms are far more ornamental in use than plain polished zinc, and the japan upon the surface resists wear and rubbing better than painted metal, from the yielding nature of the material and the absorption of the paint to some depth in the substance of the paper, so that it is not soon worn away.

If japan be employed and baked upon the paper in the usual way, the entire structure will stand a considerable degree of heat without blistering or disfigurement.

The drawings show the platform in a variety of shapes; but I do not limit myself to any particular form or style for its manufacture, and am aware that various peculiarities of form have already been patented, and do not therefore claim any particular shape for my platform.

Figure 1 in the drawings is a section of such a platform as is shown in Fig. 3, A being the body of the platform, and B a dome commonly used upon a square platform, and Fig. 2 a round one, the latter being provided with two concentric moldings, C C, formed of the substance of the paper by pressing the same in a mold. Fig. 4 shows an oblong rectangular molding near its border, and any other desired shape or style may be produced with the utmost facility when the paper is in a moist or plastic condition.

That the fire-proof paper is a very superior article for this purpose will be evident from the fact that a body of red-hot coals placed upon such a paper platform three-sixteenths of an inch in thickness remained there thirty minutes until entirely cold, without igniting the paper at all, or burning more than half of the way through, while a similar body of hot coals placed upon a board covered with zinc burned through the zinc and ignited the wood in one minute and a half.

Thus it will be seen that, although paper cannot be rendered really insensible to the influence of heat, it may be so much changed by suitable agents as to be called fire-proof.

It will also be seen that the paint or japan applied to the surface is absolutely necessary to render the platform capable of washing, and form a smooth hard surface for wear and dusting, as the paper merely rendered fire-proof would not possess either beauty or durability,

or be suited in any manner to resist the frequent contact with dust, coal, and ashes.

It is also obvious that the material thus furnished is greatly superior to metal in cheapness, beauty, and especially in real utility, from its superior non-conducting and incombustible qualities.

Having thus described my improvement, I claim the same, as follows:

A stove-platform consisting of a piece of paper or pasteboard the fibers of which are

saturated with a composition, substantially as specified, to render it fire-proof, and the surface of which is coated with waterproofing material, substantially as described.

In testimony that I claim the foregoing as my own I hereto subscribe my name in presence of two witnesses.

R. W. STILWELL.

Witnesses:

C. G. CRANE,

THOS. S. CRANE.