

F. SCHOFER.
COMBINED SMOKE AND VENTILATION SHAFT.
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1,023,530.

Patented Apr. 16, 1912.

FIG. 1.

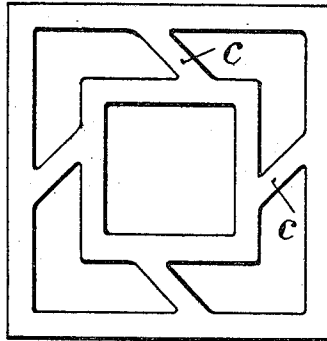
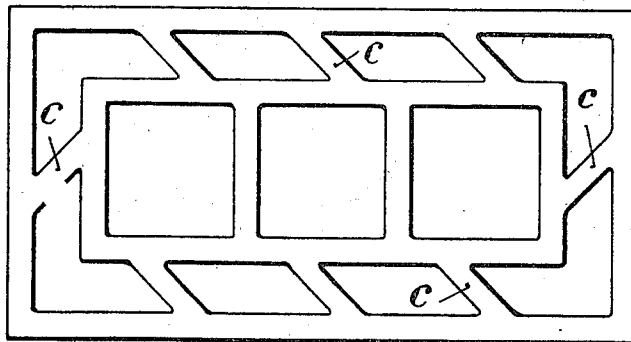


FIG. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

FRIEDRICH SCHOER, OF WAIBLINGEN, NEAR STUTTGART, GERMANY.

COMBINED SMOKE AND VENTILATION SHAFT.

1,023,530.

Specification of Letters Patent.

Patented Apr. 16, 1912.

Application filed October 14, 1910. Serial No. 587,090.

To all whom it may concern:

Be it known that I, FRIEDRICH SCHOER, a subject of the German Emperor, residing at Waiblingen, near Stuttgart, in the German Empire, have invented new and useful Improvements in Combined Smoke and Ventilation Shafts, of which the following is a specification.

Combination chimneys have been devised consisting of a square or rectangular inner smoke flue closed at all sides and provided with surrounding ventilation flues. These chimneys have since been improved by forming a battery of juxtaposed smoke flues surrounded by the ventilation shafts. In these chimneys the jackets or air flues have been connected by means of tie or distance pieces to the walls of the smoke flue or flues proper. But the provision of these tie or distance pieces in rectangular or four sided chimneys has heretofore been attended with objections, since they were placed in the sides and also in the the corners of the quadrangular chimney. As a result, even when the pipes were made of an elastic material, such a great strain was produced whenever there was a sudden change in temperature, that the chimneys cracked or broke. After many

futile endeavors and experiments to obviate these defects I have found it possible to overcome the difficulty by arranging the tie or distance pieces in a particular manner.

In the drawings, Figures 1 and 2 illustrate the chimney formed according to my invention.

When the flues are subjected to great variations of temperature the old arrangement has been found to be unsatisfactory, and I, therefore, in such cases prevent breaking and distortion by fitting the tie or distance pieces *c* at an inclined angle to the side walls and all in the same torsional direction.

Claim.

In a combined chimney and ventilation shaft, composed of a plurality of walls one within the other, the combination with said walls of a plurality of ties of greater length than the width of the space between the said walls, said ties being arranged at an inclination to the flat walls, all in the same torsional direction.

FRIEDRICH SCHOER.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."