J. SUTTON.

CHIMNEY-TOP.

No. 192,308. Patented June 19, 1877.

*Fig. 2.*

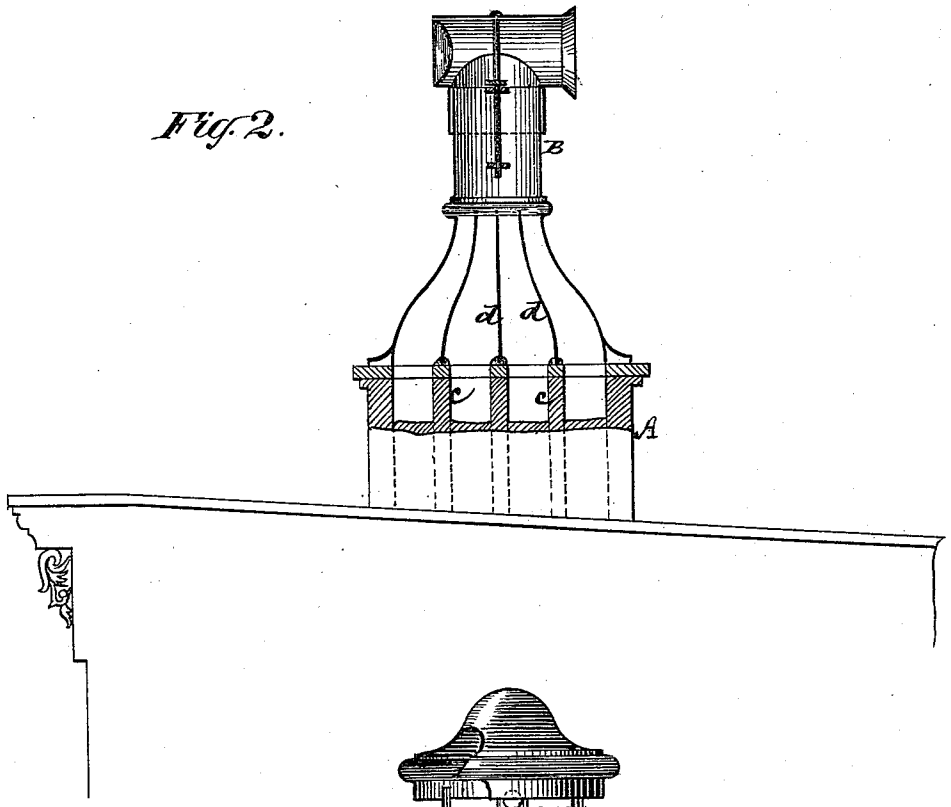
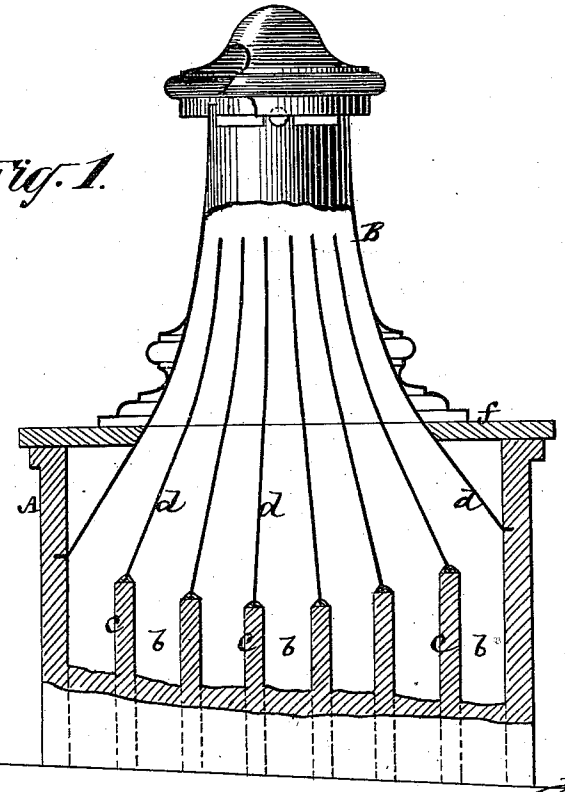



*Fig. 1.*




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# UNITED STATES PATENT OFFICE.

JOHN SUTTON, OF NEW YORK, N. Y.

## IMPROVEMENT IN CHIMNEY-TOPS.

Specification forming part of Letters Patent No. **192,308**, dated June 19, 1877; application filed May 19, 1877.

*To all whom it may concern:*

Be it known that I, JOHN SUTTON, of the city of New York, in the State of New York, have invented a new and useful Improvement in Chimney Shafts or Tops, of which the following is a description, reference being had to the accompanying drawing, which forms part of this specification.

This invention relates to chimneys of dwelling-houses and other buildings having two or more flues; and consists in a novel construction of the shaft or upper portion of the chimney above the roof of its building, whereby the several flues are made to converge within the shaft, cap, or other upper portion of the chimney toward a common outlet, and a free and straight-up draft is obtained for each flue, so that not only one chimney-pot, outlet-pipe, or cowl will answer for a number of flues, but the draft of one flue is not cut off or crossed by that of another, and each flue is made to assist the other, and the draft through the several flues is or may be equalized.

Figure 1 represents a vertical section of a chimney-shaft with a cap mounted thereon, and having my invention applied. Fig. 2 is also a vertical section of a chimney-shaft with cap and cowl mounted thereon, and my invention under another of its many modifications applied.

Referring, in the first instance, to Fig. 1, A is the shaft or portion of the chimney proper above the roof, said shaft having a series of flues, *b*, formed by upright dividing brick walls *c*, which stop short of the top of the shaft. From the tops of the dividing-walls *c*, and from opposite sides of the chimney-shaft, are run or extended metallic or other thin terminal flue dividers or conductors *d*, which project upward and form reduced continuations of the walls of the flues. These reduced flue-dividers *d* are bent, inclined, or otherwise made to converge toward the cap B as a common outlet, up within which said terminal flue-dividers may be more or less projected, and so that their upper terminal portions occupy a vertical position, or thereabout. Said flue dividers or conductors *d*, however, might terminate in the cap-base or shaft-top *f*, and the single cap, chimney-pot, exit-pipe, or cowl, which answers for the several flues, be arranged over the upper terminal portions of the flues as formed by the dividers *d*.

This construction provides for a large number of flues in the one chimney being arranged to converge toward a central and common outlet without any abrupt bend or angle, and so that the gaseous products of combustion escaping by any one of the flues will not be crossed or interfered with by the currents of the other flues, and an approximately equal draft may be obtained for all the flues, any tendency to increased draft in either one of the flues assisting the weaker drafts of the other flues. Furthermore, a free or full area is obtained for the flues, and a single cap, exit-pipe, or cowl of very moderate dimensions answers for all the flues, and there is less liability of the draft being impaired by wind or weather.

The invention may be applied alike to old as to new chimneys, and to both single and double stacks, and admits of various modifications or changes, according to the dimensions or peculiarities of the shaft or size or kind of the cap or other outlet mounted thereon.

The modification shown in Fig. 2 has the partition-walls *c* of the flues *b* run up to the top of the shaft A, and the terminal flue-dividers *d*, which project upward from said walls, arranged wholly within and formed by the cap B; but the flues converge toward a central and common outlet, and with the same effects as in the modification first described.

By the construction, however, shown in Fig. 1, in which the walls *c* of the flue stop short of the top of the shaft A, a larger number of flues may be extended by the converging dividers *d* up to or within the cap, exit-pipe, or other chimney-outlet without materially increasing the size of the latter, and without making any abrupt angle or break in the terminal portions of the flues.

In some cases the terminal converging flue-dividers *d* may be made in upper and lower sections, the upper sections being in the cap, exit-pipe, cowl, or other top piece, and the lower sections in the chimney-shaft, and said two sections made to meet or match each other.

I claim—

1. The combination, with the flue-dividing walls *c* in the shaft of the chimney, of the ter-

minal flue dividers or conductors *d*, arranged to extend upward from said walls and to converge toward or within a common outlet, substantially as specified.

2. The combination, with the shaft A, of the flue partitions or walls *c*, arranged to stop short of the top of said shaft, the cap, cowl, or chimney top or outlet B, and the upwardly-converging terminal flue dividers or conductors *d*, of a lesser thickness than said walls, essentially as shown and described.

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