

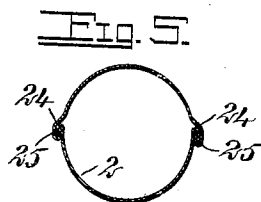
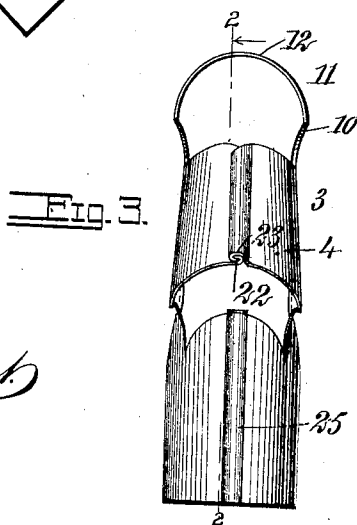
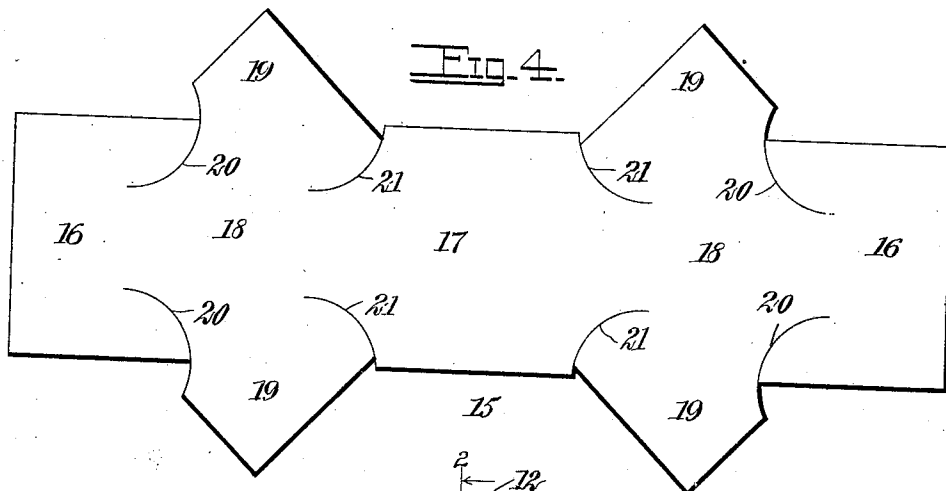
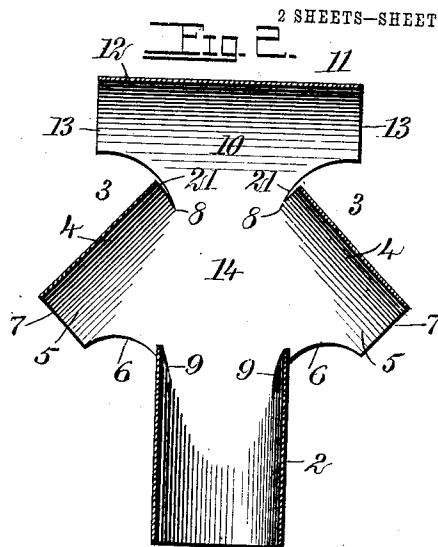
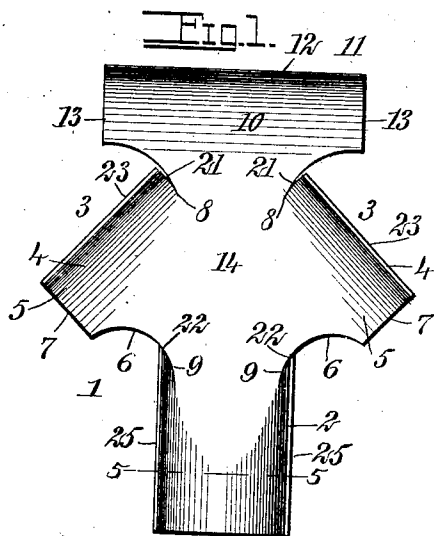
No. 826,345.

PATENTED JULY 17, 1906.

C. T. MILLER & D. B. STORCK.
CHIMNEY COWL.

APPLICATION FILED AUG. 18, 1905.

2 SHEETS—SHEET 1.



WITNESSES:

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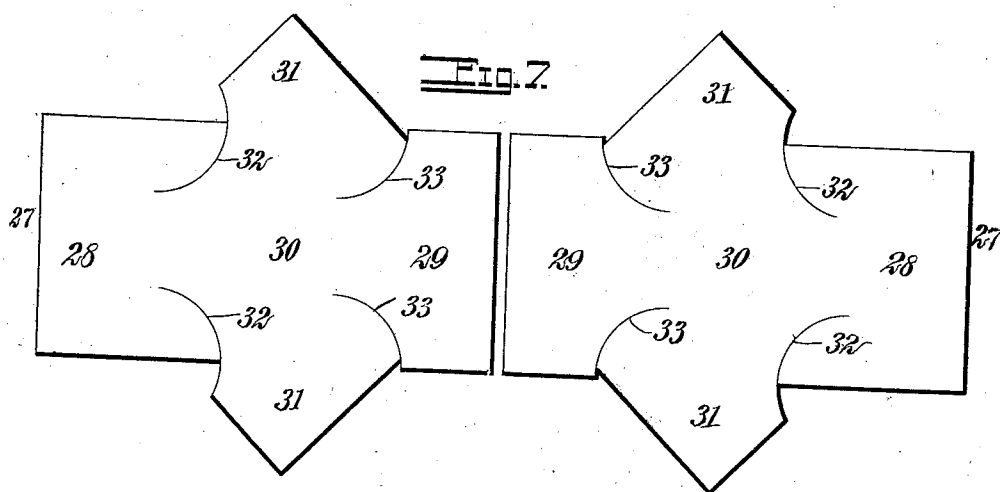
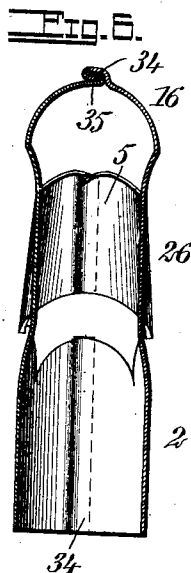
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UNITED STATES PATENT OFFICE.

CHARLES T. MILLER AND DANIEL B. STORCK, OF BATTLE CREEK, IOWA.

CHIMNEY-COWL.

No. 826,345.

Specification of Letters Patent.

Patented July 17, 1906.

Application filed August 18, 1905. Serial No. 274,693.

To all whom it may concern:

Be it known that we, CHARLES T. MILLER and DANIEL B. STORCK, citizens of the United States, and residents of Battle Creek, in the county of Ida and State of Iowa, have invented a new and Improved Chimney-Cowl, of which the following is a full, clear, and exact description.

This invention relates to chimney-cowls; and it consists, substantially, in the details of construction hereinafter more particularly described, and pointed out in the claims.

One of the principal objects of the invention is to provide a chimney-cowl of an embodiment to overcome numerous disadvantages and objections encountered in the use of many other structures hitherto devised for similar purposes.

A further object is to provide a device of this kind which is simple in construction and comparatively inexpensive to manufacture, besides being thoroughly effective and reliable in operation and possessing the capacity for long and repeated service.

The above and additional objects are attained by means substantially such as are illustrated in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side view of one embodiment of our improvements. Fig. 2 is a vertical sectional view taken on the line 2 2 of Fig. 3. Fig. 3 is a view looking at the structure from either the right or the left in Figs. 1 or 2. Fig. 4 is a plan view of the single blank from which the structure of Fig. 1, 2, and 3 is formed. Fig. 5 is a sectional detail view taken on the line 5 5 of Fig. 1. Fig. 6 is a sectional view illustrating a modification of the structure shown in Figs. 1, 2, and 3; and Fig. 7 is a plan view of the two blanks from which the structure of the preceding figure is formed.

Before proceeding with a more detailed description it may be stated that in the preferred embodiment of our improvements we form the chimney-cowl from a single piece of metal, and the same is of special construction by which wind striking it from any direction is caused to be utilized as an accessory in effectively educting the smoke and other products of combustion from the chimney in connection with which the cowl may be employed. We may also form the structure of two pieces of metal, each being practically a

duplicate of the other, the two said pieces being cut out and struck up to the desired form, so as to present substantially the first embodiment as formed of a single piece of metal, thus retaining all the characteristics and advantages of such embodiment.

Reference being had to the drawings by the designating characters thereon, and more especially to Figs. 1 to 5, inclusive, 1 represents our improved chimney-cowl in entirety, the same comprising a vertical tubular member 2 for attachment of the structure to the upper part of an ordinary chimney or stack, (not shown,) said member being of the desired height and formed with opposite laterally-disposed air ducts or conduits 3, having communication with each other and with the member 2, (see Fig. 2,) and the top or upper transversely-arched sections 4 of which are downwardly and outwardly inclined from each other, as indicated in Figs. 1 and 2, the vertical sides 5 of each of said ducts being turned downwardly, as shown, on curves or arcs of circles forming practical continuations of the curve or arc of the circle on which the top 4, with which they are associated, is struck. Each of the ducts 3 referred to is open at the under side thereof at 6, from the mouth 7 of the duct to the points 8 of intersection of the vertical sides 5 of the duct with the upper end of the tubular member 2, the material of said vertical sides merging into the material of said tubular member, preferably in gradual curves, as indicated at 9 in Figs. 1 and 2, for the purpose of strength and incidentally for ornamentation. Intersecting the said vertical sides 5 of each of the downwardly and outwardly inclined ducts 3, at the upper extremities thereof, are the outwardly-curved vertical sides 10 of another but transversely-extending duct 11, the top or upper section 12 of which is arched, as shown, (see Fig. 3,) and which is open at its under side from each end 13 thereof to the point of intersection of said vertical sides 10, with the corresponding body portions 14 of the structure.

In the embodiment of our improvements specifically described above we construct the cowl 1 entirely of a single piece of the proper metal, the blank therefor being indicated in entirety at 15 in Fig. 4 and comprising corresponding rectangular end sections 16, intermediate of which is a central rectangular section 17, each of said end sections intersecting with a subsection 18, which in turn intersects

with said central section. The said subsections 18 of this blank have integral therewith oppositely-disposed lateral wings 19, which are angular in form, as shown, and between each end section 16 and corresponding subsection 18 reversely-curved slits 20 are formed in the material of the blank, other curved slits 21 also being formed therein between the said central section 17 of the blank and each of said subsections thereof. Being thus formed, the blank is bent or turned at the middle portion of the central section thereof and the edges of the parallel portions then brought together, being previously bent or turned to form interlocking flanges 22 and 23 and 24 and 25, respectively, which when united and flattened or otherwise secured, as shown in Figs. 3 and 5, complete the construction of our improved device, as already described.

As shown in Fig. 6, the construction is identical with that shown in Figs. 1, 2, and 3, excepting that we form the cowl 26 of two separate pieces of metal, the blanks 27 for which are shown in Fig. 7. Said blanks each comprise a rectangular outer end section 28 and a rectangular inner end section 29, the latter being of dimensions approximately one-half those of the central rectangular section of the blank 15 of Fig. 4, said blanks each also comprising an intermediate section 30, corresponding to one of the subsections 18 of blank 15, together with opposite laterally-disposed wings 31, and slits 32 and 33, corresponding to the slits 20 and 21 of said blank 15. With this embodiment of our improvements the meeting edges of the two blanks (after the blanks have been pressed or struck up into the desired form) are joined together by interlocking flanges 34 and 35, with which the same are formed, and the effectiveness of the structure of either of the embodiments of our improvements referred to will be apparent.

In operation strong air-currents entering the cowl at either of the ends 13 of the duct 11 will pass out at the other of said ends, as will be understood, thus producing an increased draft up through the structure from the chimney or stack to which the structure may be applied. Similarly, strong air-currents entering the mouth 7 of either of the ducts 3 will create an upward draft through the end 13 of duct 11 in line therewith, and, conversely, as will be understood.

From the construction shown it will be seen that, due to the special construction of the ducts 3 and 10, any rain or sleet striking thereon will be effectually deflected therefrom in such manner as to prevent entrance thereof within the structure or chimney or stack with which it may be associated.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. A chimney-cowl, comprising a tubular member, an upper transversely-extending duct, and intermediate laterally-disposed inclined ducts, all constructed of a single piece of material.

2. A chimney-cowl composed of a single piece of material, and comprising a vertical tubular member, a transversely-extending tubular duct arranged above the vertical member, and lateral ducts intermediate said transverse duct and the vertical member, said lateral ducts inclining outwardly and downwardly from the tubular member, each of said ducts communicating with each other and with the tubular member.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

CHARLES T. MILLER.
DANIEL B. STORCK.

Witnesses:

M. H. STORCK,
W. W. SCHUNEMAN.