No. 864,267. PATENTED AUG. 27, 1907.

T. B. SAMUEL.

CHIMNEY COWL.

APPLICATION FILED AUG. 12, 1905.

Fig 1

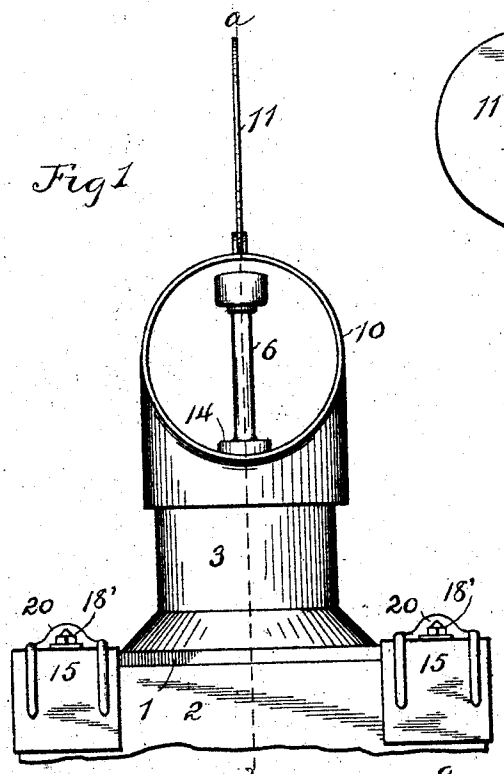
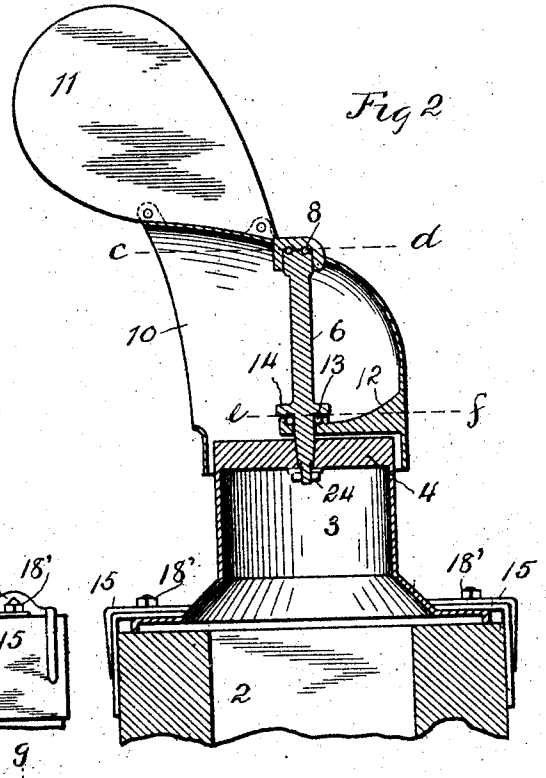


Fig 2



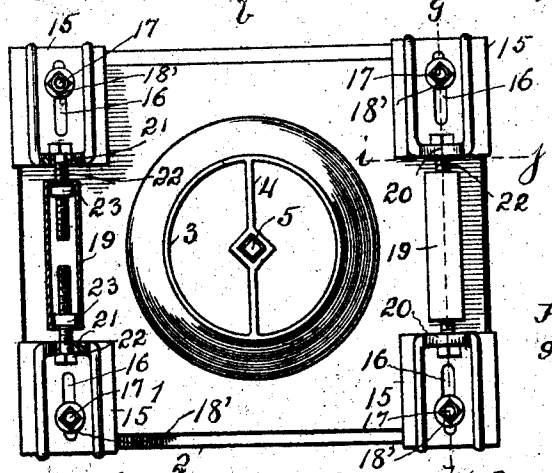


Fig 3

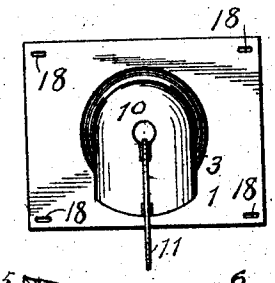


Fig 4

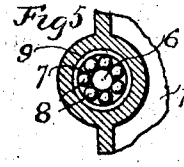


Fig 5

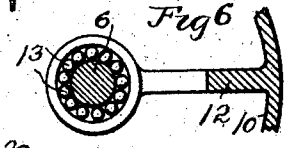


Fig 6

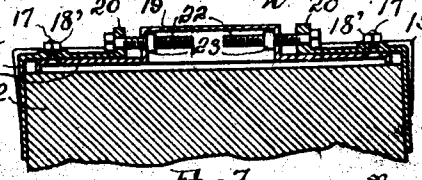


Fig 7

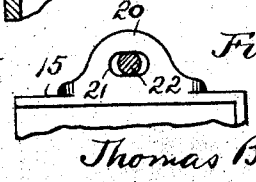


Fig 8

Witnesses

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THOMAS B. SAMUEL, OF HIAWATHA, KANSAS.

CHIMNEY-COWL.

No. 864,267. Specification of Letters Patent. Patented Aug. 27, 1907.

Application filed August 12, 1905. Serial No. 273,968.

To all whom it may concern:

Be it known that I, THOMAS B. SAMUEL, a citizen of the United States, residing at Hiawatha, in the county of Brown and State of Kansas, have invented new and useful Improvements in Chimney-Cowls, of which the following is a specification.

My invention relates to improvements in chimney cowls.

One object of my invention is to provide a chimney cowl with an adjustable clamping mechanism by which the cowl may be readily secured to chimneys of different sizes.

My invention provides further, a chimney cowl with a rotary hood mounted on a suitable base and novel means for rotatively supporting the hood upon the base which permits rotation of the hood with the minimum of friction.

Other novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawings illustrating my invention—Figure 1 is a front elevation view showing the cowl mounted upon a chimney, the upper part of which is shown. Fig. 2 is a vertical sectional view taken upon the dotted line *a—b* of Fig. 1. Fig. 3 is a plan view of the cowl shown mounted on a chimney top. Fig. 4 is a plan view of the cowl with the clamping plates and bolts removed. Fig. 5 is a horizontal sectional view taken on the dotted line *c—d* of Fig. 2. Fig. 6 is a horizontal sectional view taken on the dotted line *e—f* of Fig. 2. Fig. 7 is a vertical sectional view taken on the dotted line *g—h* of Fig. 3. Fig. 8 is a vertical sectional view taken on the dotted line *i—j* of Fig. 2.

Similar characters of reference denote similar parts.

The base of the cowl comprises a horizontal portion 1 adapted to be mounted upon the top of the chimney 2 and having a vertical tubular portion 3 provided on its upper end with a central horizontal integral bar 4 forming an axle support and provided with a vertical central downwardly converging hole 5, having a form otherwise than round in cross section, and having fitted in it the lower end of a vertical axle 6 provided at its upper end with a circular ball race 7 having mounted therein a series of balls 8 which are also mounted in an annular ball race provided in a recess 9 on the inner side and adjacent the upper end of a hood 10 which has secured to its upper outer side the lower end of a vertical vane 11, the disposition of which is such as to always throw the open side of the hood from the wind. The hood 10 is provided adjacent its lower end with an inwardly extending horizontal radial arm 12 provided with a vertical opening through which the axle 6 extends and which permits rotation around the axle of the hood. The upper side of the arm 12 is provided with a ball race disposed concentrically with the axis of the axle 6 and having mounted therein a series of balls 13 adapted to bear against the periphery of the axle 6, and prevent lateral movement of the hood 10. The axle 6 is provided above the balls 13 with an annular peripheral flange 14, which cover the said balls and prevent admission thereto of dirt or moisture. Four clamping plates 15 are mounted respectively upon the four corners of the base 1. Each clamping plate 15 is provided with two right-angled vertical sides adapted to embrace two sides of the chimney and also with a horizontal portion connected at its upper ends to the two vertical sides and adapted to rest upon the top of the base 1. The clamping plates 15 are each adjustable toward and from the two sides of the chimney clamped by it, thus affording a means for adapting the cowl to chimneys of different sizes.

I will now describe the mechanism for obtaining the adjustment of the clamping plates 15 upon the base 1:—

Each clamping plate 15 is provided in its horizontal portion with a slot 16 disposed transversely to one dimension of the chimney. Four vertical bolts 17 have their upper ends extending respectively through said slots 16, the lower ends of said bolts being mounted respectively in vertical slots 18 provided one adjacent each corner of the base 1 and disposed at right angles to the slots 16 respectively. The upper ends of the bolts 17 are screw threaded and have mounted thereon respectively nuts 18′ which bear respectively upon the upper sides of the clamping plates 15. The base 1 is provided adjacent each end with two parallel transverse housings 19 disposed one between each of two opposite clamping plates 15. Each clamping plate is provided at the end adjacent the adjacent housing with a vertical projection 20 provided with a transverse horizontal slot 21 in which is mounted a horizontal bolt 22 the inner end of which is screw threaded and has mounted upon it a nut 23 disposed within and adapted to bear against the inner side of the adjacent housing 19.

In fitting the cowl to a chimney the nuts 18′ are first loosened, after which the base is placed upon the top of the chimney and the clamping plates 15 and bolts 17 are moved lengthwise of the base 1 in the holes 18 to positions in which the clamping plates 15 will be respectively against the two narrow sides of the chimney. The bolts 22 are then turned so as to draw the clamping plates 15 toward the housings 19 and tightly against the two wide sides of the chimney, after which the nuts 18′ are turned so as to bind the clamping plates 15 tightly upon the base 1. When positioned as described on the chimney the cowl is ready for use.

If desired to prevent detachment of the hood 10 and axle 6 from the base the lower end of the axle below the axle support 4 may be screw threaded and have mounted thereupon a nut 24, as shown in Fig. 2 the upper side of which bears upon the lower side of the axle support. The lower end of the hood 10 encircles but does not touch the periphery of the upper end of the tubular por-

tion 3 of the base. The balls 8 support the hood which freely rotates thereon around the axle 6, the balls 13, as before described, serving as a bearing to prevent lateral movement of the hood at its lower end and permitting its rotation around the axle without coming in contact with the axle or the base.

Various modifications of my invention may be made without departing from its spirit.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. In a chimney cowl, the combination with a base adapted to be secured to the top of the chimney and having a vertical tubular portion provided with a transverse axle support, of a vertical axle secured rigidly to said axle support and provided with a ball race, a rotary hood encircling said tubular portion and said axle and provided adjacent its lower end with an inwardly extending transverse arm having a vertical hole through which the axle extends and having on its inner side adjacent its upper end a ball race, and a series of balls located in said two ball races and supporting said hood.

2. In a chimney cowl, the combination with a base adapted to rest upon the top of the chimney, of adjustable means for clamping the base to the chimney, the base having a vertical tubular portion, a vertical axle secured to said base centrally in said tubular portion and provided at its upper end with a circular ball race, a rotary hood encircling said tubular portion and said axle and having adjacent its upper end a ball race located on its inner side, and provided adjacent its lower end with an inwardly extending arm having a vertical hole through which the axle extends, said arm having on its upper side a ball race encircling said vertical hole, and two series of balls one series being mounted in the race on the axle and in the race in the upper end of the hood and supporting the hood, the other series of balls being mounted in the race on said inwardly extending arm and arranged around the periphery of and adapted to bear against the said axle.

3. In a chimney cowl, the combination with a base adapted to rest upon the top of the chimney and having a vertical tubular portion having a transverse axle support, of means for clamping the base to the chimney, a rotary hood having a vane secured thereto and encircling the tubular portion and the axle and provided with two recesses for receiving the axle therein, and two series of balls interposed between the axle and the hood in said recesses respectively, one of said series supporting the hood and the other series preventing lateral movement of the hood relative to the axle.

4. In a chimney cowl, the combination with the base adapted to rest upon the top of the chimney and provided with a vertical tubular portion having a transverse axle support provided with a central tapering vertical hole, of means for clamping the base to the chimney, a vertical axle the lower end of which is tapered and fitted in said tapering hole in the axle support, locking means for preventing upward movement of the axle relative to its support, a hood encircling the tubular portion and the axle, and bearing balls interposed between the axle and the hood and supporting the hood.

5. The combination with the base adapted to be supported on the top of the chimney and provided with a vertical tubular portion having a transverse axle support provided with a central downwardly converging vertical hole having a cross section other than round, of means for clamping the base to the chimney, a vertical axle the lower end of which is fitted to the hole in the axle support, means engaging the underside of the axle support and the axle for preventing upward movement of the axle, and a hood encircling the tubular portion and the axle and rotatively mounted on the axle.

6. The combination with a base adapted to be supported on the top of the chimney and having a vertical tubular portion provided with a transverse axle support, of means for clamping the base to the chimney, a vertical axle provided with means for being secured centrally at its lower end to said axle support and having above said support a peripheral flange and adjacent its upper end a circular ball race disposed concentric with the axis of the axle, a rotary hood encircling said tubular portion of the base and having on its inner side a vertical recess for receiving the upper end of the axle and provided adjacent its lower end with a radial transverse arm having a vertical hole to receive the axle and located below said flange and provided on its upper side with a ball race encircling the axle, and two series of balls, one mounted on said ball race on said arm and the other series mounted in said recess and on the ball race at the upper end of the axle.

In testimony whereof I affix my signature, in presence of two subscribing witnesses.

THOMAS B. SAMUEL.

Witnesses:
H. R. THOMAS,
GEO. H. ADAMS.