

No. 702,779.

Patented June 17, 1902.

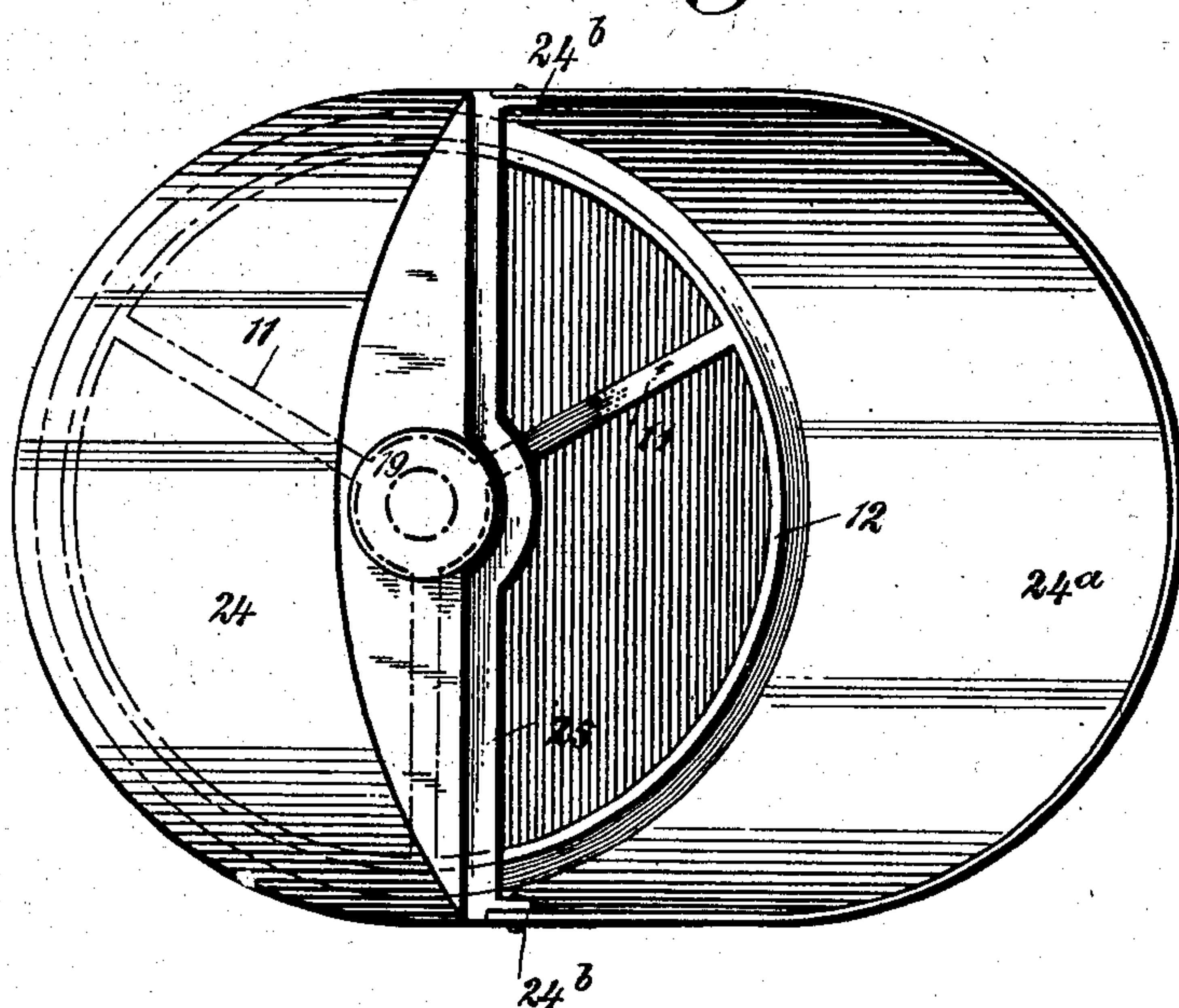
A. E. & F. J. COOK.
REVOLVING CHIMNEY CAP.

(Application filed May 25, 1901.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 1a.



WITNESSES:

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ANNA E. COOK AND FREDERICK J. COOK, OF LAWRENCEBURG, INDIANA.

REVOLVING CHIMNEY-CAP.

SPECIFICATION forming part of Letters Patent No. 702,779, dated June 17, 1902.

Application filed May 25, 1901. Serial No. 61,862. (No model.)

To all whom it may concern:

Be it known that we, ANNA ELIZA COOK and FREDERICK JOHN COOK, citizens of Lawrenceburg, in the county of Dearborn and State of Indiana, have invented a new and Improved Revolving Chimney-Cap, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a revolving chimney-cap which is a substitute for high smoke-stacks and which will prevent the wind from blowing the smoke back into the chimney, as the improved cap turns with the wind and insures a perfect draft.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to 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 vertical section through the improved chimney-cap, and Fig. 1^a is a plan-view of the improved chimney-cap. Fig. 2 is a vertical section through a slight modification of the base of the device adapted to be attached directly to the chimney.

A represents a smoke-stack, and B a head for the stack. This head consists of a central hub 10, having a threaded bore extending through, preferably, from the top to the bottom, and series of arms 11, which extend from the hub. A peripheral plate 12 connects the said arms, which peripheral plate extends below the arms and is recessed upon its outer face at its bottom portion to receive the upper end of the stack A, and the peripheral plate 12 of the head B is secured to the stack A through the medium of bolts or rivets 13 or their equivalents.

A vertical shaft 14 is used in connection with the head B. This shaft is screwed at its lower end into the hub 10 of the said head B, as is shown in Fig. 1, the lower end of the shaft having to that end an exterior thread 15. Slightly above the head B the shaft 14 is provided with a reduced surface 16, for a purpose to be hereinafter described, and the upper end 17 of the shaft 14 is conical, as is also shown in Fig. 1. The conical or pointed

upper end 17 of the shaft 14 is made to enter a conical recess 18, formed in the under face of a cap-screw 19, the upper end of which cap-screw is made polygonal in order that it may be turned by a wrench when desired, and the head-section of the cap-screw 19 extends beyond its sides, the cap-screw being exteriorly threaded below its head to be screwed into the upper end of a tube 20, the lower end of which tube 20 is exteriorly threaded and is screwed into a bearing 21. This bearing 21 is provided with an interior chamber below the lower end of the tube 20, and in this chamber a series of balls 23 are loosely placed, entered into the said chamber in any suitable or approved manner, and these balls have bearing against the reduced surface 16 of the said shaft 14, as is also shown in Fig. 1.

The upper revoluble portion of the improved cap is made in two sections, preferably a cast section 24, which is curved from the bottom upward and inward, as shown in Fig. 1, the lower edge of the said section 24 of the revoluble portion of the cap being free to turn around and extends down over the upper portion of the head B, which is exteriorly beveled to a greater or less degree. This section 24 of the revoluble portion of the cap is provided with an inwardly-extended flange 25, and this flange 25 has an opening for receiving the body of the cap-screw 19 and is clamped in the space between the head of the cap-screw 19 and the upper end of the tube 20, as is also shown in Fig. 1. The upper revoluble portion of the cap is completed by the addition of a sheet-iron or light metallic section 24^a, which is curved reversely to the curvature of the section 24, and the section 24^a is attached to the section 24 through the medium of vertical flanges 24^b, forming a portion of the section 24, and bolts or rivets 24^c, passed through the said vertical flanges of the aforesaid section 24^b of the revoluble portion of the cap, as is also shown in Fig. 1. Thus it will be observed that the upper portion of the cap has a decided inclination in one direction and is mounted to turn on the upper conical portion 17 of the shaft 14. This upper revoluble portion of the cap is balanced by means of a weight 27, which is adjusted upon a threaded stem 26, the said stem being

secured to the bearing 21, as is shown in Fig. 1, and by means of the weight 27 the upper section may be delicately balanced upon the shaft 14, so that the least draft of air will act
5 upon the upper section of the cap and will turn the same around the head B.

In Fig. 2 we have illustrated the adaptation of the device directly to a chimney C, and under this construction the head B is connect-
10 ed directly with a throat 28, which has a flange 28^a at its bottom, adapted to rest upon the upper face of the chimney. The said throat 28 is provided with series of apertures 29, the apertures being located one above the
15 other, and wires 30 are passed through these apertures and are twisted together at their outer ends, the said wires extending down into the chimney and over nails or spikes 31 or their equivalents, which are driven into
20 the mortar between the most convenient courses in the construction of the chimney.

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

25 1. In a chimney-cap, the combination, with a lower head-section having openings therein and adapted for attachment to a stack or to a chimney, and a vertical shaft secured to said head-section, the upper end of which shaft is
30 pointed, of an upper section open at the top and mounted to revolve upon the said pointed portion of the shaft and around the lower head-section, the upper section being in two connected members inclined in the same di-
35 rection at opposite sides of the vertical axes of the cap from the head-section upward and having more or less convexed outer faces, ball-bearings provided for the upper sections of the cap, the balls whereof engage with the
40 said shaft, a screw within the upper section, extending from the said ball-bearings, and a weight adjustable upon the said screw, for the purpose set forth.

45 2. In a chimney-cap, the combination, with a lower head-section of spider formation, hav-
ing means for attachment to a chimney or to

a stack, a shaft secured to the said head-section at its lower end, the upper end of the shaft being conical, a cap-screw mounted upon the conical end of the shaft, and a tube
50 detachably connected to the cap-screw at its upper end, of a ball-bearing located around the lower portion of the shaft, the balls where-
of engage with the shaft, the said tube supporting the said bearing, a screw extended
55 from said bearing, a weight adjustable upon the screw, and an upper revoluble portion for the cap attached to the said cap-screw, and free to turn at its lower end around the lower head-section of the cap, as set forth. 60

3. In a chimney-cap, the combination, with a lower head-section of spider formation, having means for attachment to a chimney or to a stack, a shaft secured to the said head-section at its lower end, the upper end of the
65 shaft being conical, a cap-screw mounted upon the conical end of the shaft, and a tube detachably attached to the cap-screw at its upper end, of a ball-bearing located around the lower portion of the shaft, the balls where-
70 of engage with the shaft, said tube supporting the said bearing, a screw extended from said bearing, a weight adjustable upon the screw, an upper revoluble portion for the cap attached to said cap-screw, and free to turn
75 at its lower end around the lower head-section of the cap, the said upper portion of the cap consisting of a casing which is directly attached to the cap-screw and a member of lighter material secured to the casing, the en-
80 tire revoluble section having a slope from the bottom upward in direction of one side of the lower base-section, as described.

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

ANNA E. COOK.
FREDERICK J. COOK.

Witnesses:

HENRY J. BUESE,
NOAH S. GIVAN.