

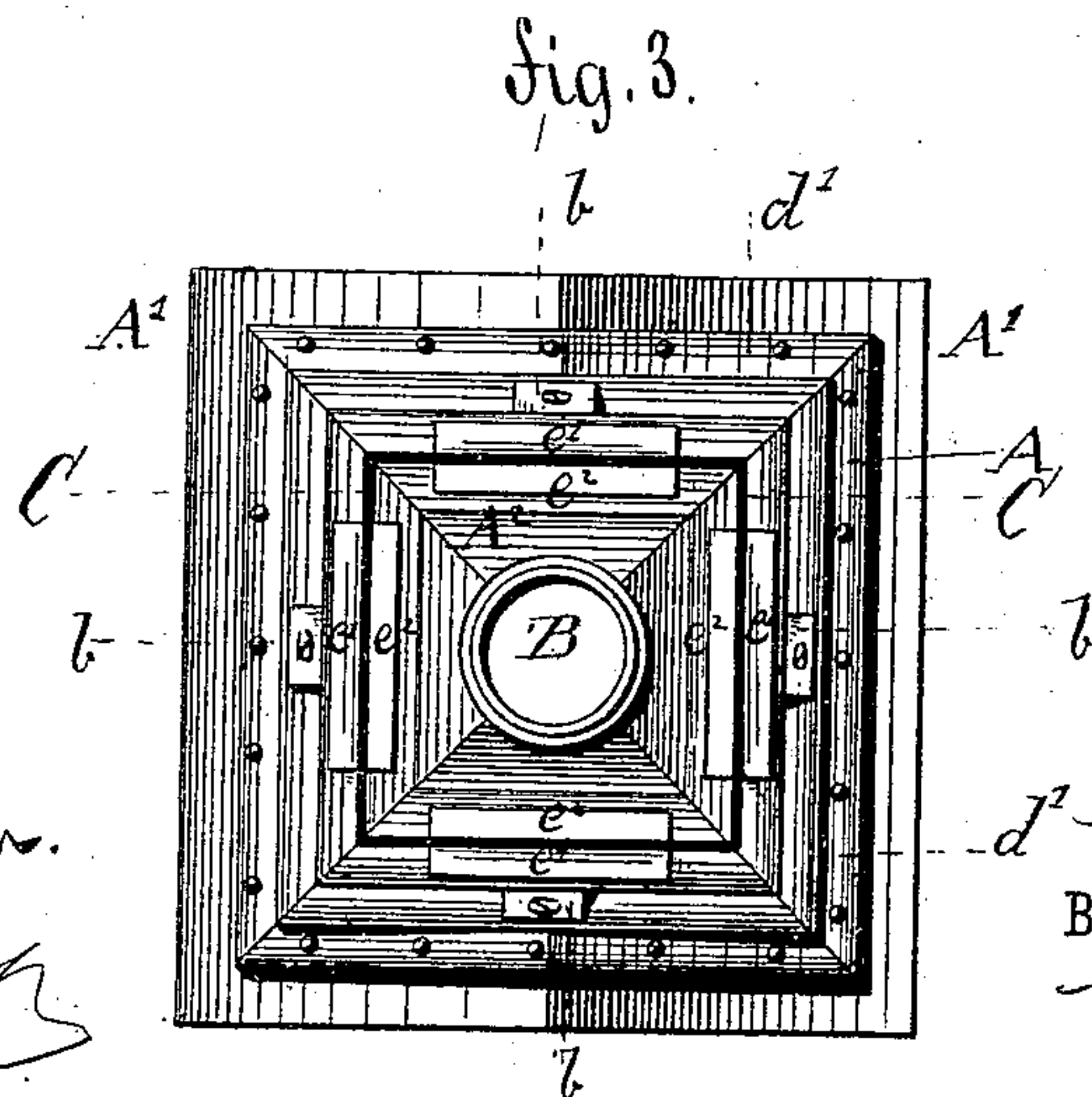
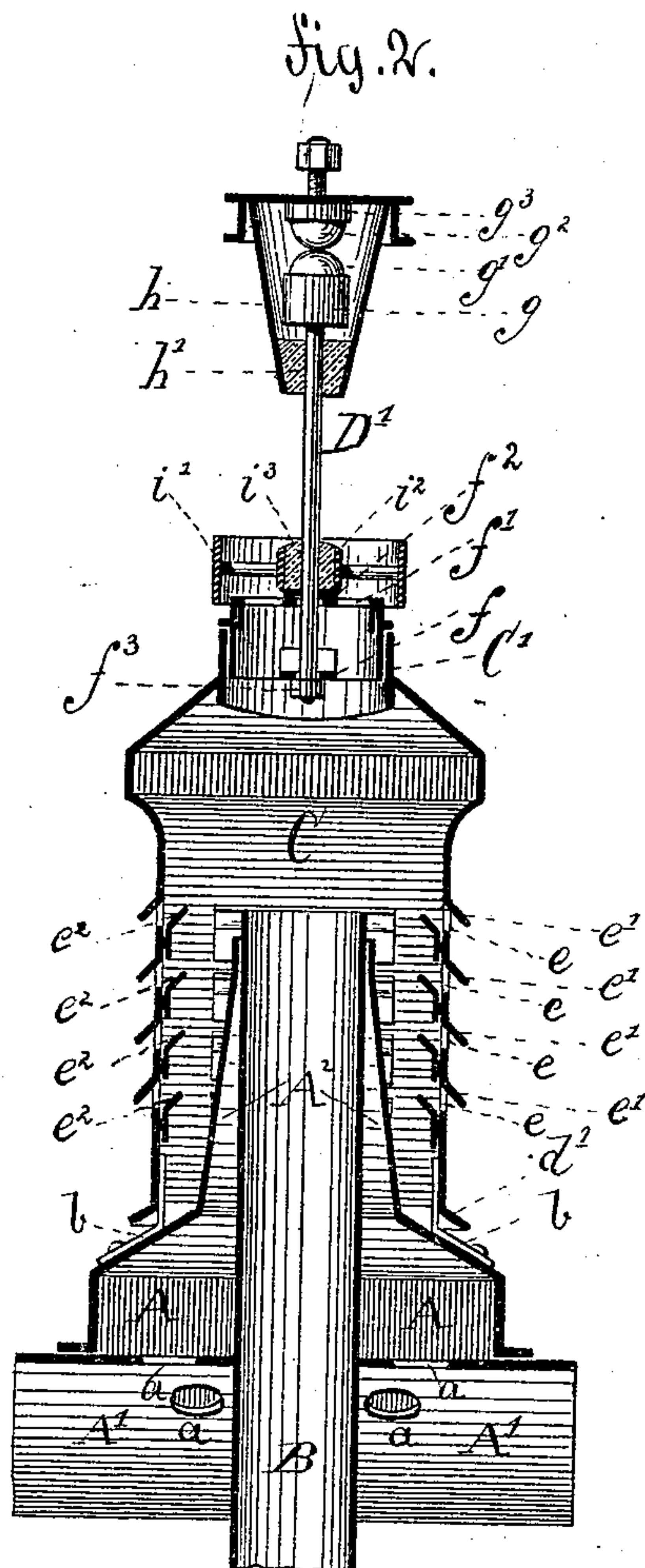
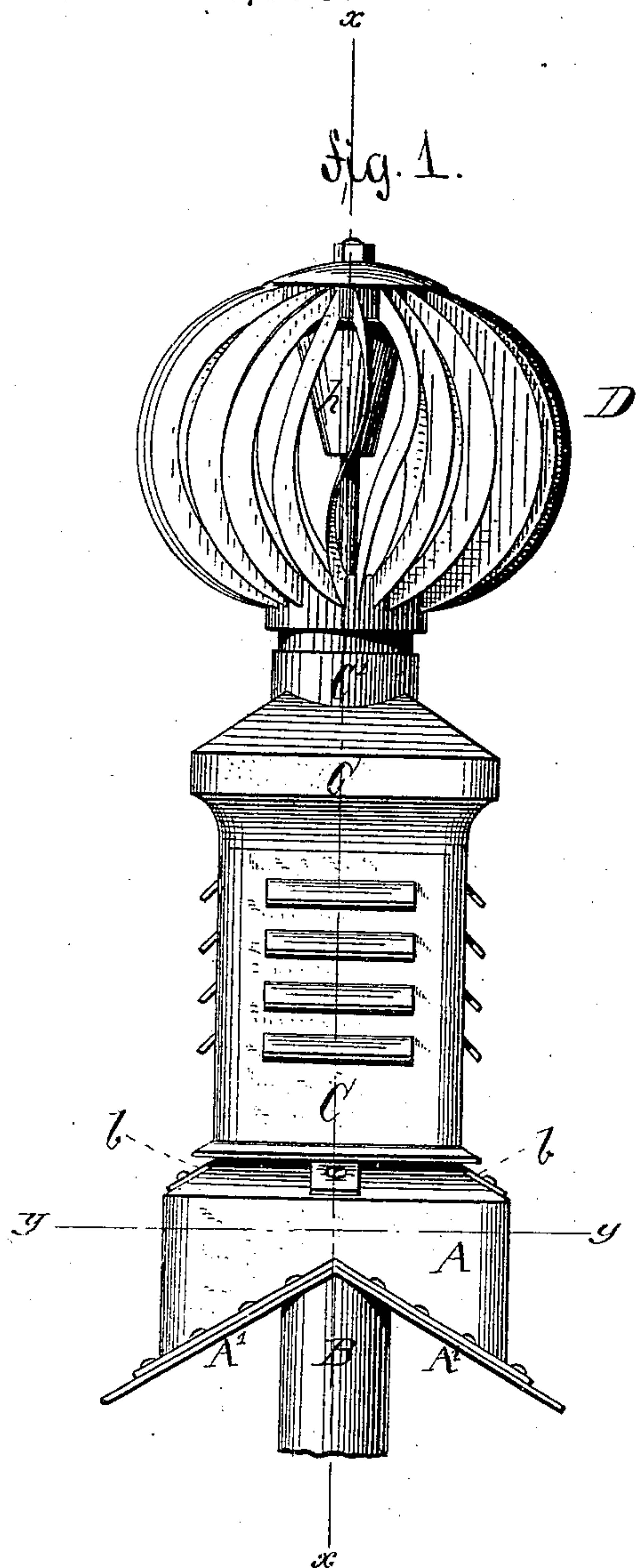
(No Model.)

K. RUETSCHI.

CHIMNEY CAP AND VENTILATOR.

No. 313,375.

Patented Mar. 3, 1885.



WITNESSES:

For. H. Rosenbaum.
Carl Karp

INVENTOR

Konrad Ruetschi

BY

G. P. & R. R. R. R.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

KONRAD RUETSCHI, OF BATTLE CREEK, IOWA.

CHIMNEY CAP AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 313,375, dated March 3, 1885.

Application filed April 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, KONRAD RUETSCHI, of Battle Creek, in the county of Ida and State of Iowa, have invented certain new and useful Improvements in Chimney Caps and Ventilators, of which the following is a specification.

This invention relates to an improved chimney cap and ventilator, by which a steady draft is secured and smoke and moisture prevented from passing down the chimney into the rooms.

The invention consists of a square cap supported by brackets at some distance from the base, and provided with a flange at the lower edge, and with side openings having outer and inner inclined flanges for deflecting the air-currents, and also of a peculiar revolving ventilator and apertured inclined base for this cap.

In the accompanying drawings, Figure 1 represents a side elevation of my improved chimney cap and ventilator. Fig. 2 is a vertical transverse section on line xx , Fig. 1; and Fig. 3, a horizontal section on line yy , Fig. 1.

Similar letters of reference indicate the same parts throughout the several views.

A in the drawings refers to the square base of my improved chimney cap and ventilator, which base is riveted to inclined plates A' , that are rigidly secured to the supporting-frame of the roof. The base A may also be anchored to the end of the brick chimney. The plates A' are provided with openings a inside of the base A, so that any moisture can condense and pass off. The square base A terminates in a tapering portion, A^2 , that supports by its upper round portion a central smoke-pipe or flue, B. The tapering portion A^2 is surrounded by a square cap, C, that is secured to the vertical arms of four brackets or straps, b , the lower arms of which are riveted to the base A. The cap C has an outwardly-flaring flange, d' , at its lower edge, which is at some distance from the base A, so that an opening is formed between the casing C and the base A, through which the air can freely enter. The side walls of the cap C are provided with horizontal slots e , exterior downwardly-inclined flanges, e' , at their upper edges, and interior upwardly-inclined flanges, e^2 , at their lower edges, as shown clearly in Fig. 2. The

flanges d' , e' , and e^2 serve for the purpose of deflecting the wind that strikes the outside of the cap C in upward direction, which is assisted by the tapering upper portion, A^2 , of the base A. An upward draft of air is thereby induced, that carries off the smoke emitted by the smoke-pipe B. The top of the cap C is made tapering, and has a circular opening and tube, C' . In said tube C' is arranged a diametrical strap, f , by which and a second strap, f' , at right angles to and above the first strap, f , the vertical spindle D' of the ventilator D is supported. The spindle D' rests by a collar, f^2 , on the upper strap, f' , and is attached to the lower strap, f , by a screw-nut, f^3 , as shown in Fig. 2. The spindle D' carries in a socket, g , at its upper end a glass ball, g' , on which a similar glass ball, g^2 , sets into a socket, g^3 , at the upper part of the ventilator. The glass balls g' g^2 are inclosed by a conical box, h , having a sleeve-shaped bearing, h' , of glass at its lower end, so that the rain cannot enter to the glass balls g' g^2 . The ventilator D is formed, in the usual manner, of a number of spiral blades or wings of sheet metal, which are secured at their upper ends to a rim-plate, i , and at their lower ends to a circular ring, i' , that turns by a hub, i^2 , having a sleeve-shaped glass bearing, i^3 , on the fixed spindle D' . As the ventilator turns on a glass seat, and is guided by glass bearings on the spindle D' , it runs with very little friction and begins to move with the slightest draft. As there is no contact of metal with metal at the bearings, the latter cannot corrode, so that a very durable and effective ventilator for chimneys is obtained. The smoke that is carried in upward direction by the air-currents is dispersed by the blades of the ventilator, and cannot be pressed downward into the smoke-pipe by the pressure of the wind. The chimney cap and ventilator will keep up the draft even when higher buildings are close by, partly by the upwardly-deflected air-currents and partly by the effective action of the ventilator. The rain is prevented from entering into the smoke-pipe, nor can it at the points of connection with the roof.

The chimney cap and ventilator are preferably made of galvanized sheet metal, which offers less resistance to the passage of the

smoke, and can be finished in a more ornamental manner than brick chimneys, with little if any additional expense.

Having thus described my invention, I claim
5 as new and desire to secure by Letters Patent—

1. The combination of a square base, A, having a tapering upper portion, A², a central smoke-pipe, B, an exterior cap, C, supported by brackets at some distance from the base A,
10 said cap having an inclined flange at its lower edge, and side slots with inclined exterior and interior flanges, substantially as set forth.

2. In a chimney cap and ventilator, the combination of the smoke-pipe B, the cap C, sur-

rounding the smoke-pipe, and having open- 15
ings for the admission of air, and the fixed spindle D', supported by said cap, with the ventilator D, composed of curved serpentine blades adapted to revolve on a vertical axis, substantially as set forth. 20

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

KONRAD RUETSCHI.

Witnesses:

ANDREW STOUCH,
J. S. ADUDDLELL.