

No. 816,641.

PATENTED APR. 3, 1906.

W. D. CALLOW.

PIANO.

APPLICATION FILED DEC. 26, 1905.

Fig. 1.

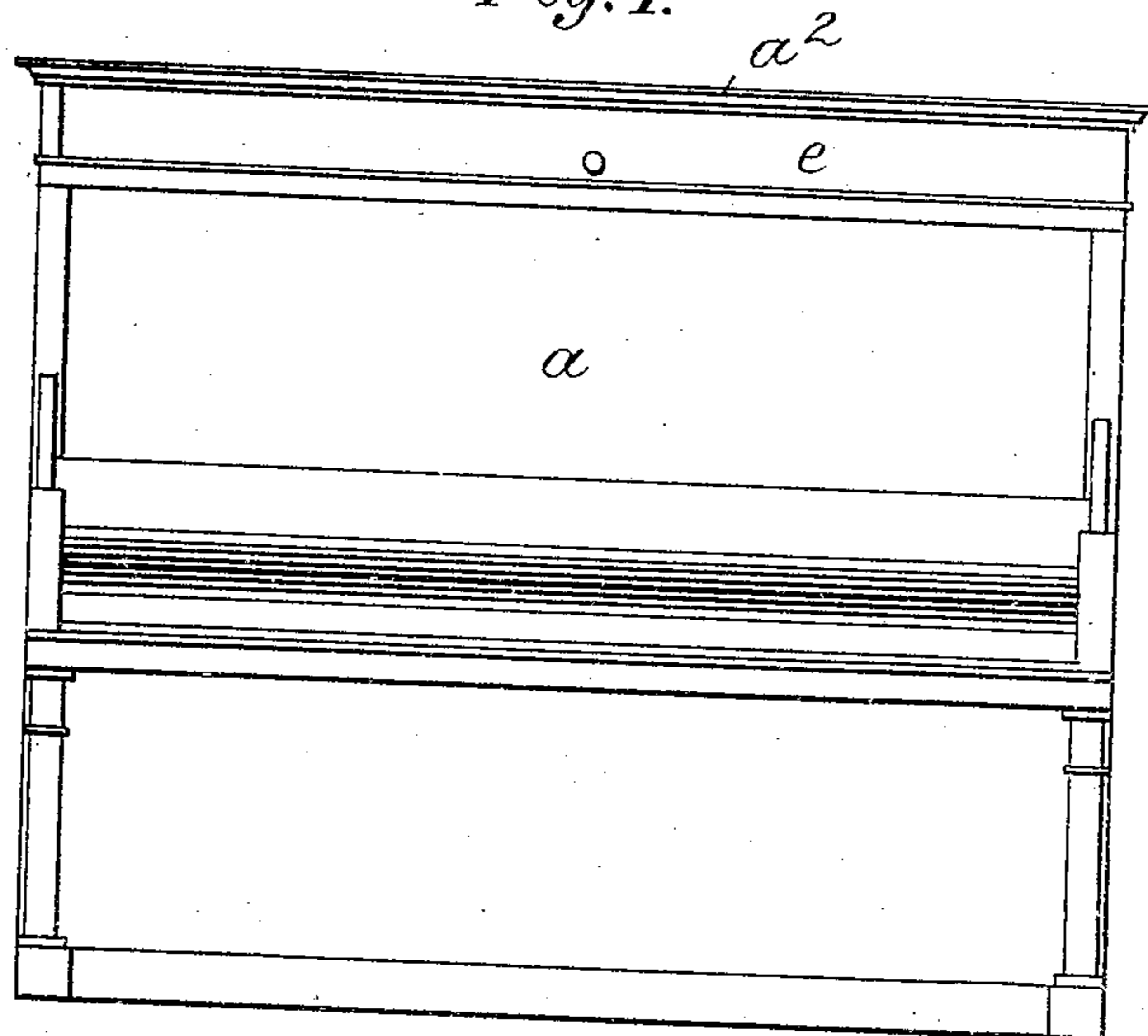


Fig. 5.

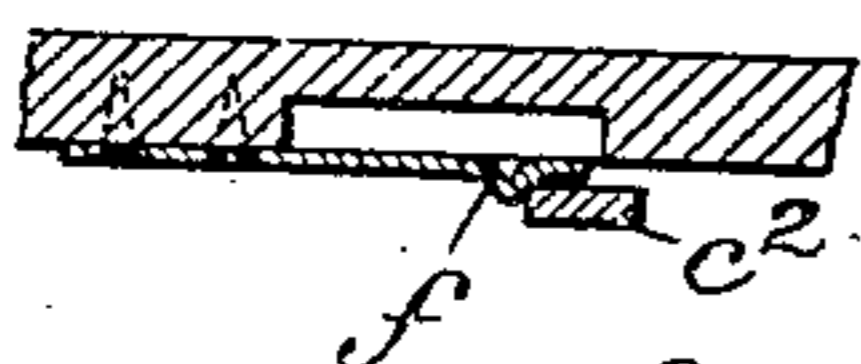


Fig. 6.

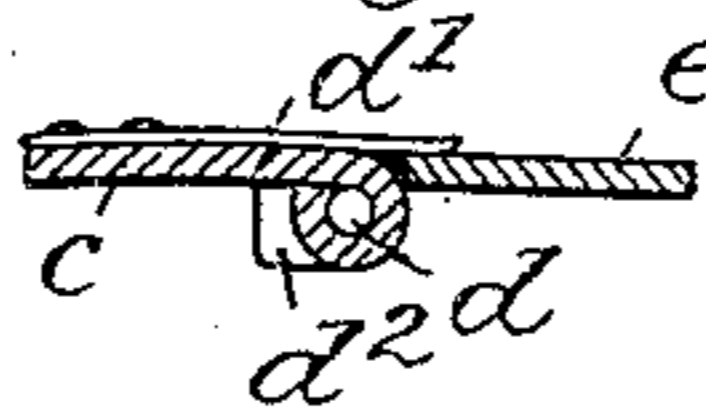


Fig. 7.

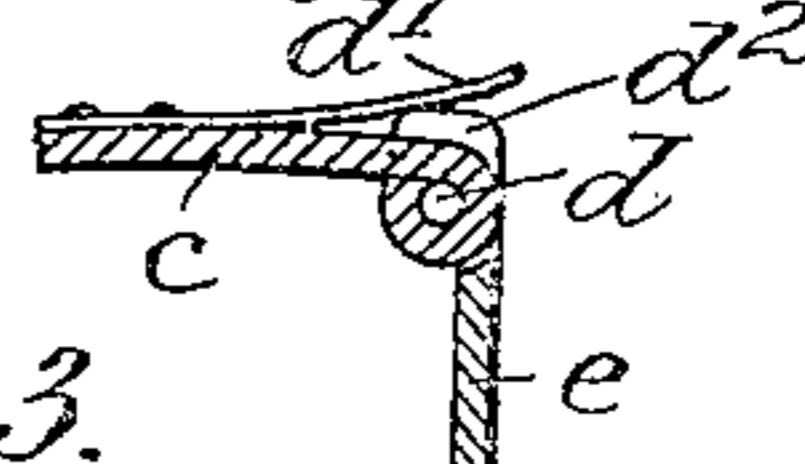


Fig. 2.

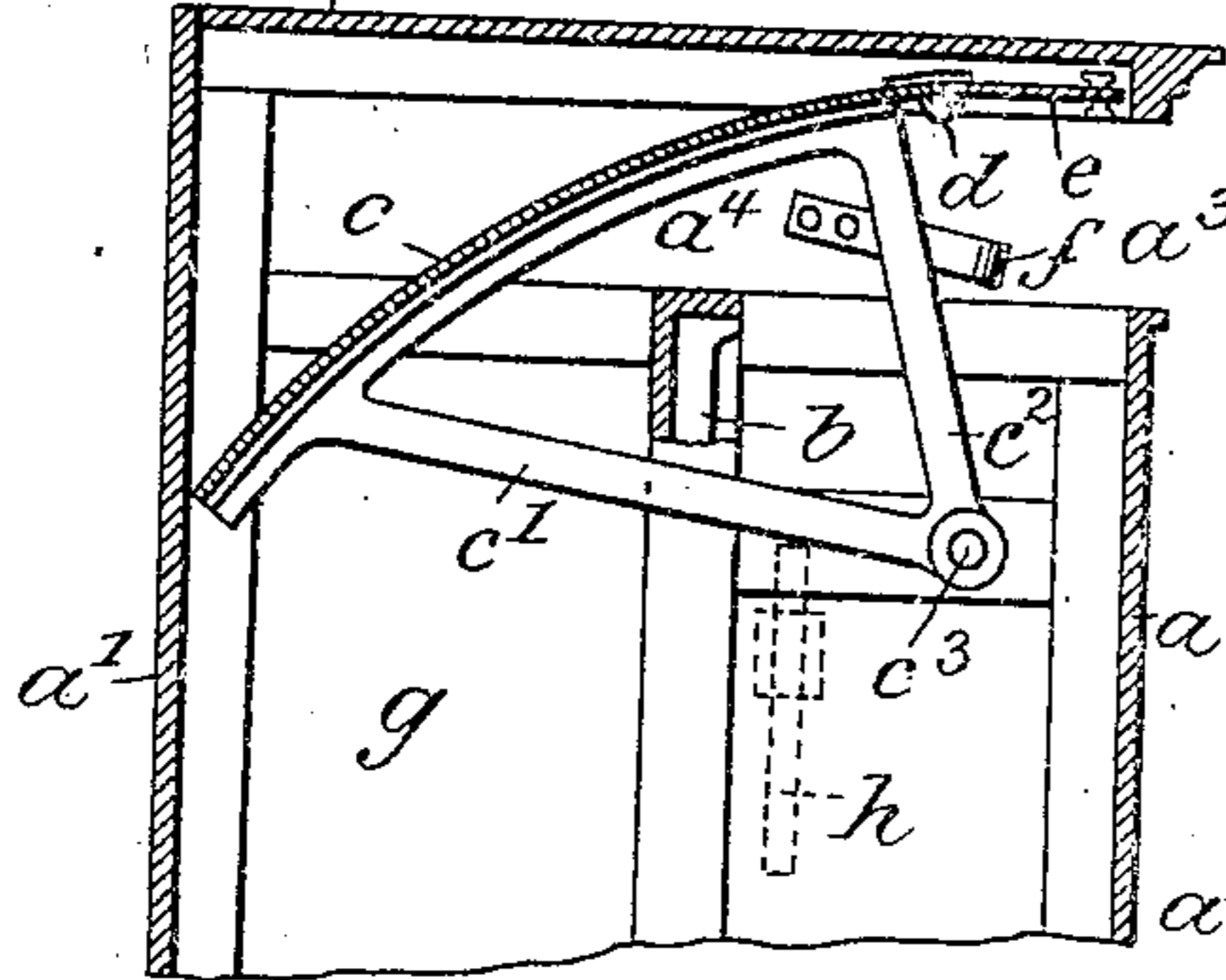


Fig. 3.

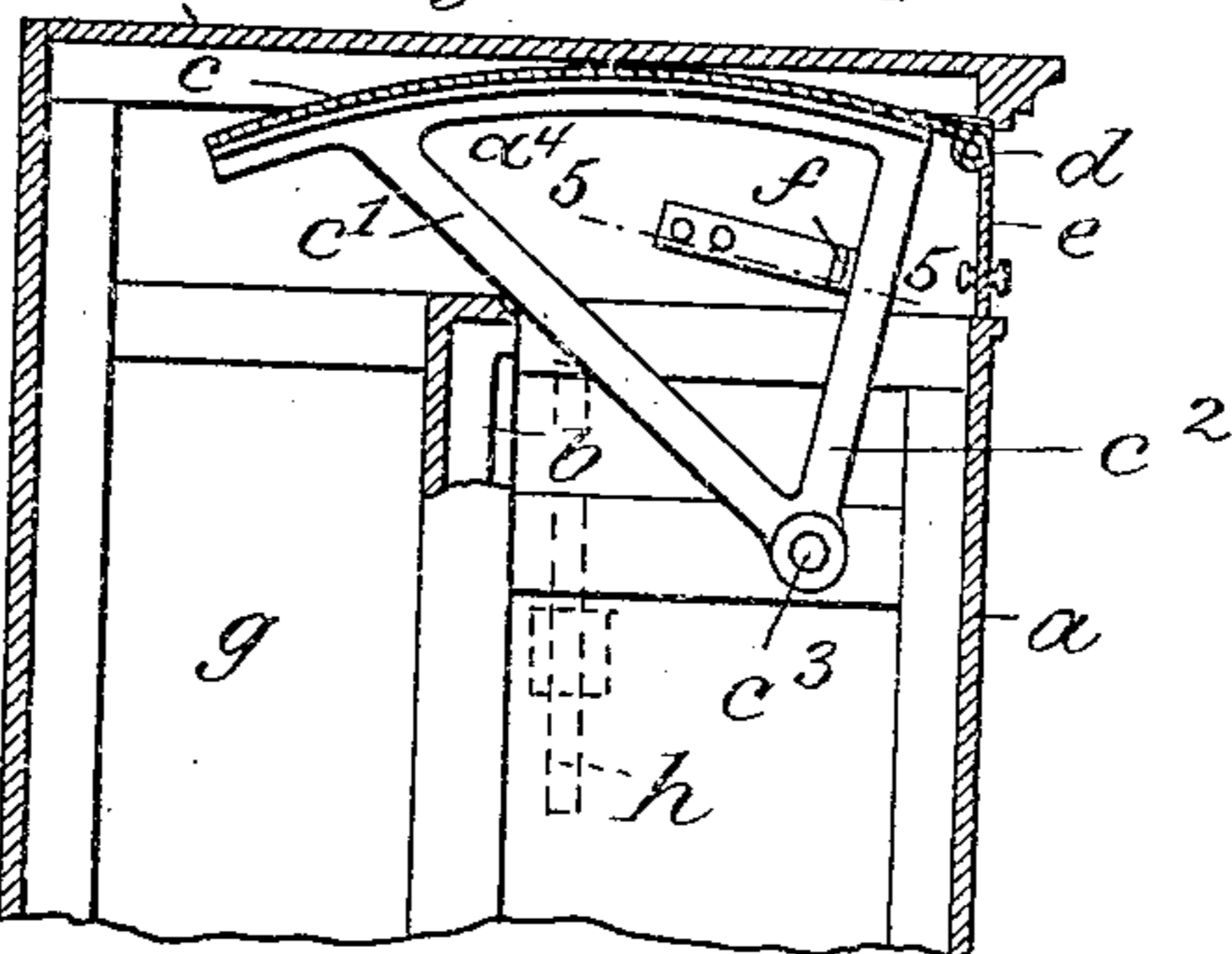
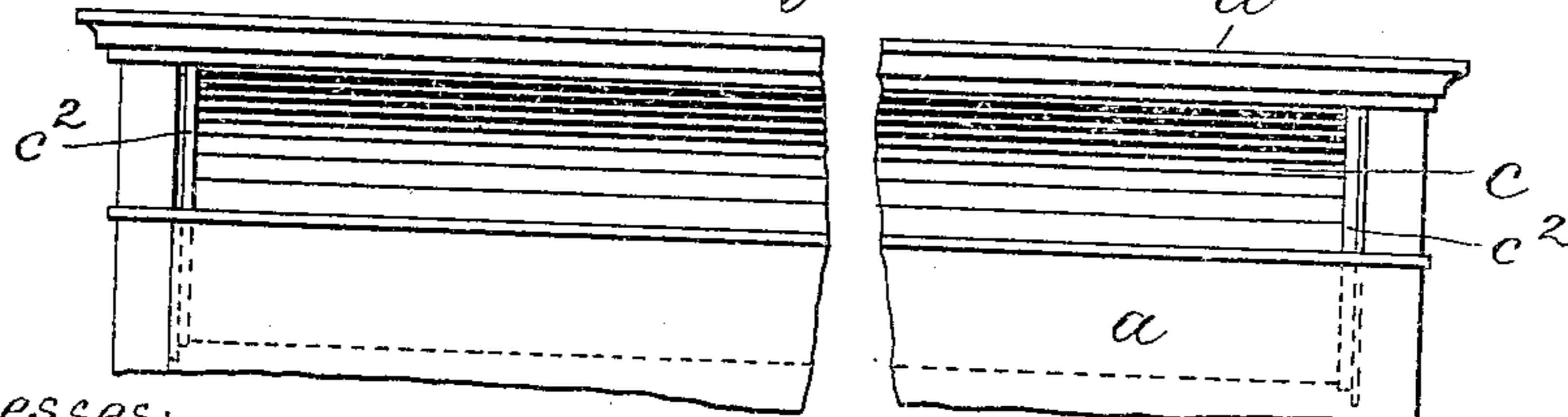


Fig. 4.



Witnesses:  
Arthur Zumpfer.  
William Schuch.

Inventor:  
William D. Callow  
by Frank P. Bissell Atty.

# UNITED STATES PATENT OFFICE.

WILLIAM D. CALLOW, OF NEWARK, NEW JERSEY, ASSIGNOR TO ROTH & ENGELHARDT, OF NEW YORK, N. Y., A FIRM.

## PIANO.

No. 816,641.

Specification of Letters Patent.

Patented April 3, 1906.

Application filed December 26, 1905. Serial No. 293,174.

*To all whom it may concern:*

Be it known that I, WILLIAM D. CALLOW, a citizen of the United States, residing at Newark, Essex county, State of New Jersey, have  
5 invented new and useful Improvements in Pianos, of which the following is a specification.

This invention relates to an improved piano or similar instrument, and more particularly  
10 to means for increasing the volume of sound emitted and means for controlling said volume of sound.

In the accompanying drawings, Figure 1 is a front view of an upright piano embodying  
15 my invention. Figs. 2 and 3 are cross-sections through the upper part of the piano, showing the sound-reflector in different positions; Fig. 4, a detail front view, partly broken away, of the upper part of the piano-  
20 case; Fig. 5, a detail of the latch, and Figs. 6 and 7 are details of the stop-hinge.

The piano-case is provided with a front  $a$ , a back  $a'$ , and a top  $a^2$ . Below the top  $a^2$  there is formed in the front  $a$  an open panel  
25  $a^3$ , adapted for the emission of sound.  $b$  represents the usual iron frame, carrying the sound-board and arranged parallel to back  $a'$ .

In order to deflect the sound and carry it forward through panel  $a^3$ , there is provided  
30 below top  $a^2$  a curved plate or reflector  $c$ , having arms  $c'$   $c^2$ , fulcrumed to the piano-casing at  $c^3$ . To the front of plate  $c$  there is secured by a hinge  $d$  a lid or fall  $e$ , which when swung down is adapted to close opening  $a^3$ . The hinge  $d$  has a spring  $d'$ , which

by engaging a knuckle  $d^2$  holds the fall  $e$  in its raised position, Figs. 2 and 6. The reflector  $c$  is maintained in its forward position by a catch  $f$ , engaging arm  $c^2$ , Figs. 3 and 5.

Between frame  $b$  and back  $a'$  there is formed 40 an upright chamber  $g$ , which communicates with the open panel  $a^3$  by means of an upper sound-passage  $a^4$ , formed below reflector  $c$ . When the reflector is in its normal position, Fig. 2, it projects over chamber  $g$ , so that the  
45 sound-waves flow from said chamber below the reflector and along sound-passage  $a^4$  out through open panel  $a^3$ . When the plate  $c$  is swung forward and the lid  $e$  is drawn down to close panel  $a^3$ , the volume of sound emitted  
50 will be considerably reduced, so that in this way the volume of tone is readily controlled by the operator. The reflector may be operated by a lifter  $h$  from a pedal or by a push-  
55 button.

What I claim is—

1. A piano provided with a top, an open front, and a curved pivoted reflector below the top, substantially as specified.

2. A piano provided with a top, an open 60 front, a pivoted reflector below the top, and a fall hinged to the reflector, substantially as specified.

Signed by me at New York city, (Manhattan,) New York, this 22d day of December, 65 1905.

WILLIAM D. CALLOW.

Witnesses:

FRANK V. BRIESEN,  
ARTHUR ZUMPE.