

(No Model.)

F. A. SOMMER.
MUSICAL TOY.

No. 408,635.

Patented Aug. 6, 1889.

FIG. 1.

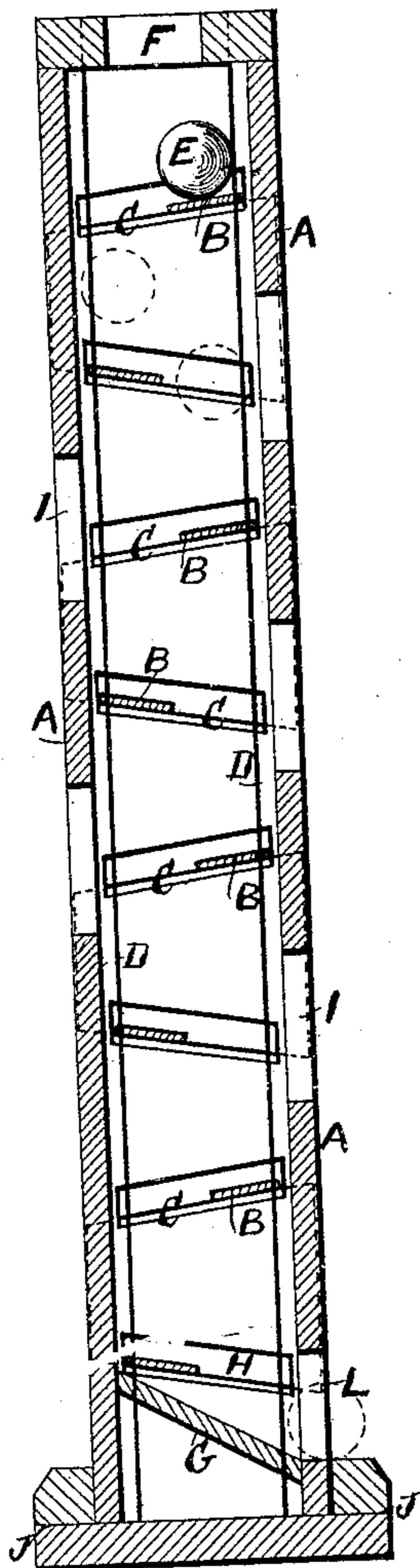


FIG. 2.

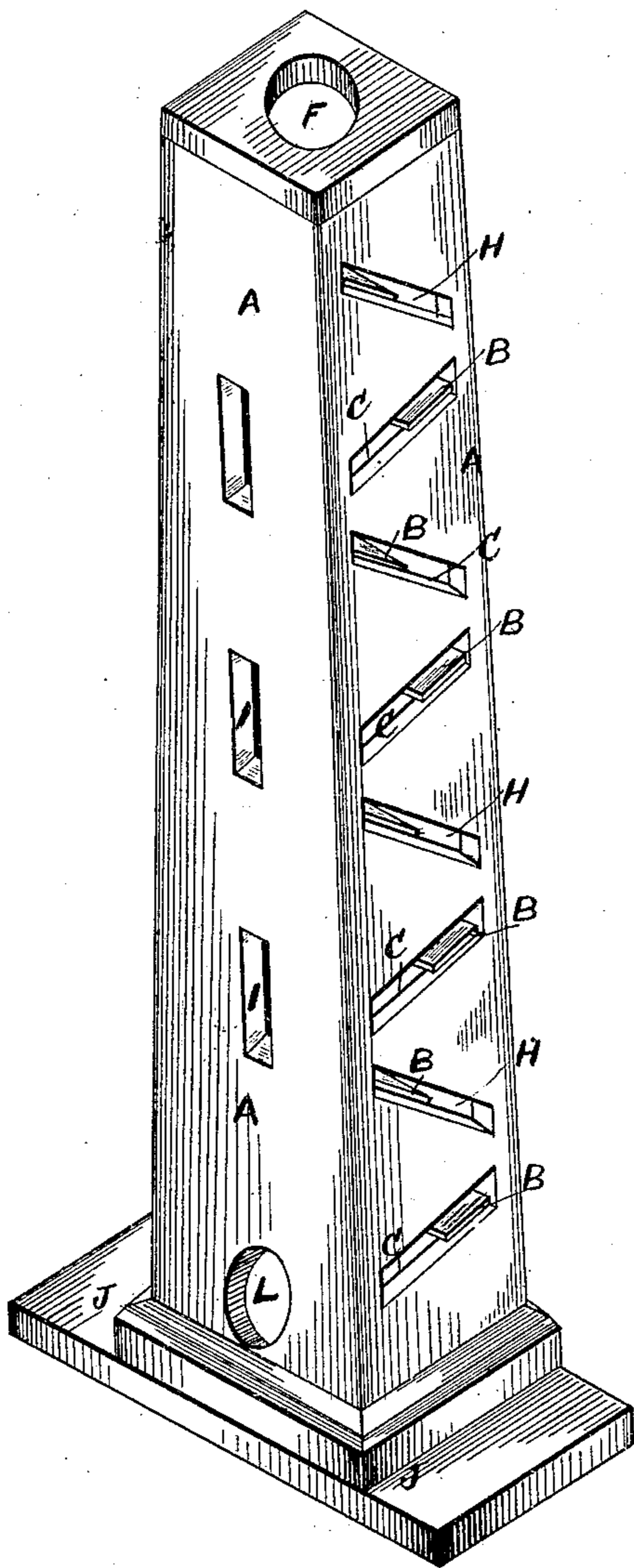
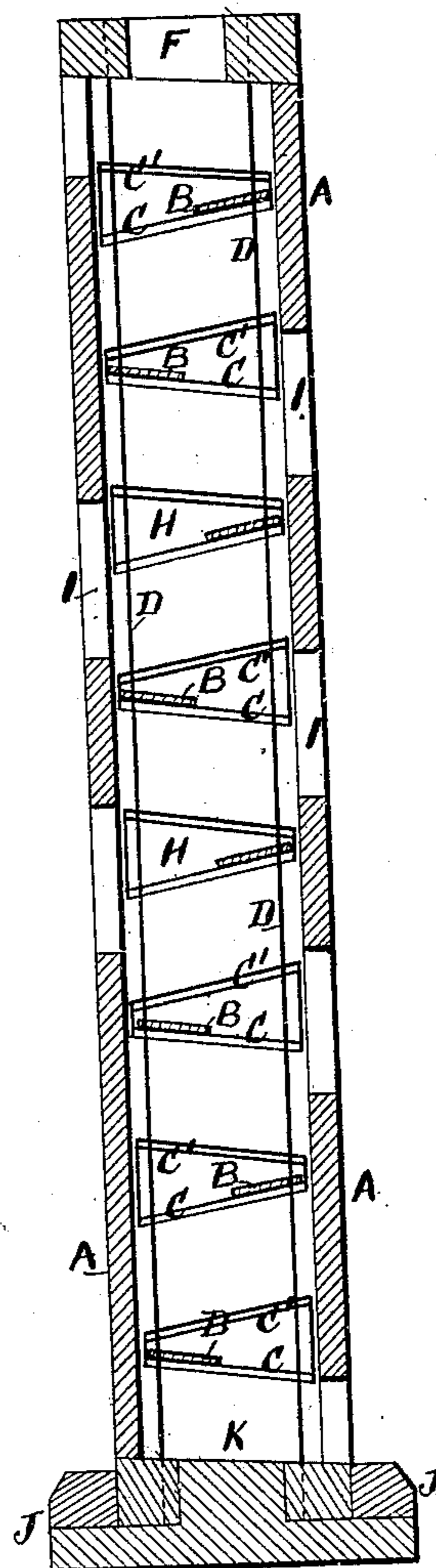


FIG. 3.



Witnesses:
J. A. Rutherford
Abel Grubb

Inventor:
Felix Alexander Sommer
By James L. Norris atty.

UNITED STATES PATENT OFFICE.

FELIX ALEXANDER SOMMER, OF HAMMERSMITH, COUNTY OF MIDDLESEX,
ENGLAND.

MUSICAL TOY.

SPECIFICATION forming part of Letters Patent No. 408,635, dated August 6, 1889.

Application filed April 23, 1889. Serial No. 308,244. (No model.) Patented in England August 21, 1888, No. 12,077.

To all whom it may concern:

Be it known that I, FELIX ALEXANDER SOMMER, a subject of the Queen of Great Britain, residing at 39 Chancellor's Road, Hammersmith, county of Middlesex, England, have invented new and useful Improvements in Musical Toys by the Dropping in of Balls or Marbles, (patented in Great Britain, No. 12,077, bearing date August 21, 1888,) of which the following is a specification.

This invention has for its object to provide a novel musical toy of the type wherein marbles are caused to roll over a series of metal plates to produce different sounds.

The invention consists in the novel features of construction and combination of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view of my improved musical toy. Fig. 2 is a vertical central sectional view of the same, and Fig. 3 is a vertical sectional view showing a modification of my invention.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, where the letter A indicates a tapering hollow column having two opposite side walls each provided with a series of slots H, which alternately incline in reverse directions. The other two side walls each have a series of slots I, arranged one above the other. In the highest part of each inclined slot is arranged one end of a musical plate or bar B, of metal, glass, or other suitable material, the arrangement being such that the plates or bars are alternately located at opposite sides of the column from the top portion to the base portion thereof, while each plate is inclined downwardly from one side wall toward the opposite side wall. The sidewise inclination of the musical plates or bars is transverse to their length, and at their ends these plates or bars are supported by cords C C, which are strung from side to side of the column A along the length of the slots H H and have vertical cords D D passed through them to hold them in place, so that they are suspended for free vibration for producing notes or sounds when struck upon.

Balls of wood or other suitable material or marbles E are inserted through an aperture or mouth F at the upper part of the column A, and by falling from one plate B to another they produce a series of musical notes by striking thereon in succession, the balls or marbles being led out at the bottom of the column through the aperture L by an incline G (shown in Fig. 1) to be replaced into the mouth F for a continuation of the musical effects.

The slots H H are made in two opposite sides of the column A, and in the other two sides are openings I I for the freer escape of sound-waves.

According to Figs. 1 and 2 the column A is of tapered form and the balls can only be inserted at the top, the bottom being fixed to the base J; but according to Fig. 3 the base J and column A are separable, so that the column can be reversed when desired to repeat the musical notes in the reverse order to that previously given.

In Fig. 3 both ends of the column are preferably alike and either end can be fitted into the base J, there being a step-piece K on the base for fitting into the opening corresponding to the mouth F, the inner surface of which, with that of the step-piece K, is at an incline for causing the balls to leave the column at the bottom outlet L.

In Fig. 3 the slots H H are preferably V-shaped, and the supporting-cords C C are double and conform to the V shape of the slots, so that the plates B shift themselves and rest upon the cords C' C' when the column is reversed.

I do not confine myself to cords of textile material, as other material, such as leather, may be employed so long as the inclined musical plates are freely suspended out of contact with rigid parts of the column, so as to vibrate for producing effective musical notes or sounds, as before described.

What I claim, and desire to secure by Letters Patent, is—

1. A musical toy consisting of a vertical column having side walls which are provided with slots, a series of alternating inclined musical plates, and vertical cords running continuously through the column from top to bottom

thereof at each end of all the plates and freely suspending both ends of every plate, so that the entire plate can freely vibrate free from supporting contact with every portion of the column, substantially as described.

2. A musical toy consisting of a column having two opposite side walls each provided with a series of slots which alternately incline in reverse directions, the musical plates inclined sidewise and having their opposite ends arranged alternately at the highest and lowest ends of the slots, and a flexible support for each end of every plate to freely suspend the same from contact with the column, substantially as described.

3. A musical toy consisting of a column having side walls provided with slots, a series of vertical cords extending continuously through the column from top to bottom there-

of, a series of transverse cords connected with the vertical cords at each of two opposite sides of the column, and musical plates inclined sidewise and alternately arranged at opposite sides of the column, and having each of their ends supported by a transverse cord to freely suspend the plates from contact with the column, substantially as described.

In witness whereof I have hereto signed my name, in the presence of two subscribing witnesses, this 5th day of April, 1889.

FELIX ALEXANDER SOMMER.

Witnesses:

HENRY GARDNER,
Patent Agent, 166 Fleet Street, London, England.

RICHARD CORE GARDNER,
166 Fleet Street, London, England.