

No. 763,061.

PATENTED JUNE 21, 1904.

H. F. KEIL.  
BRACKET AND SUPPORT.  
APPLICATION FILED OCT. 25, 1902.

NO MODEL.

Fig. 1.

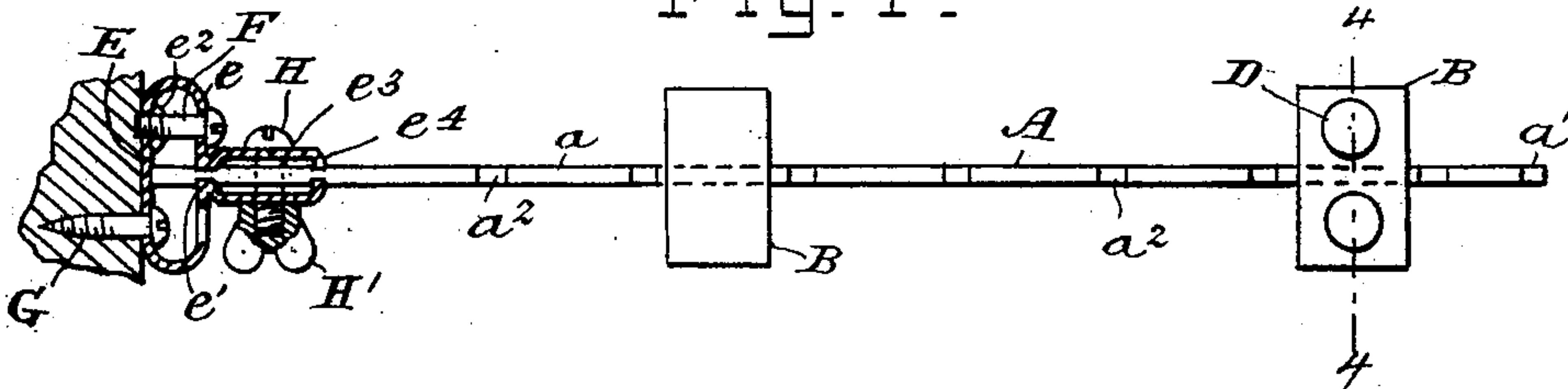
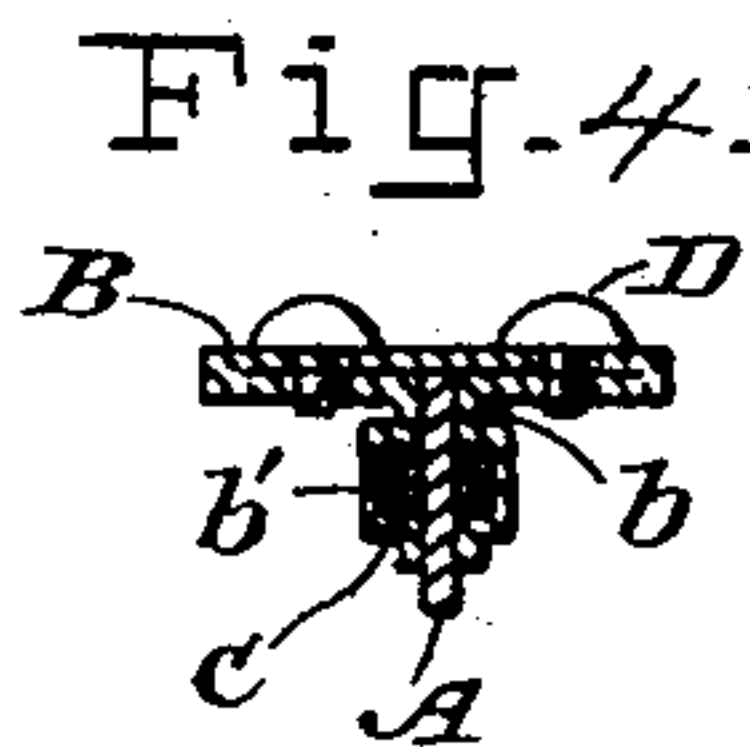
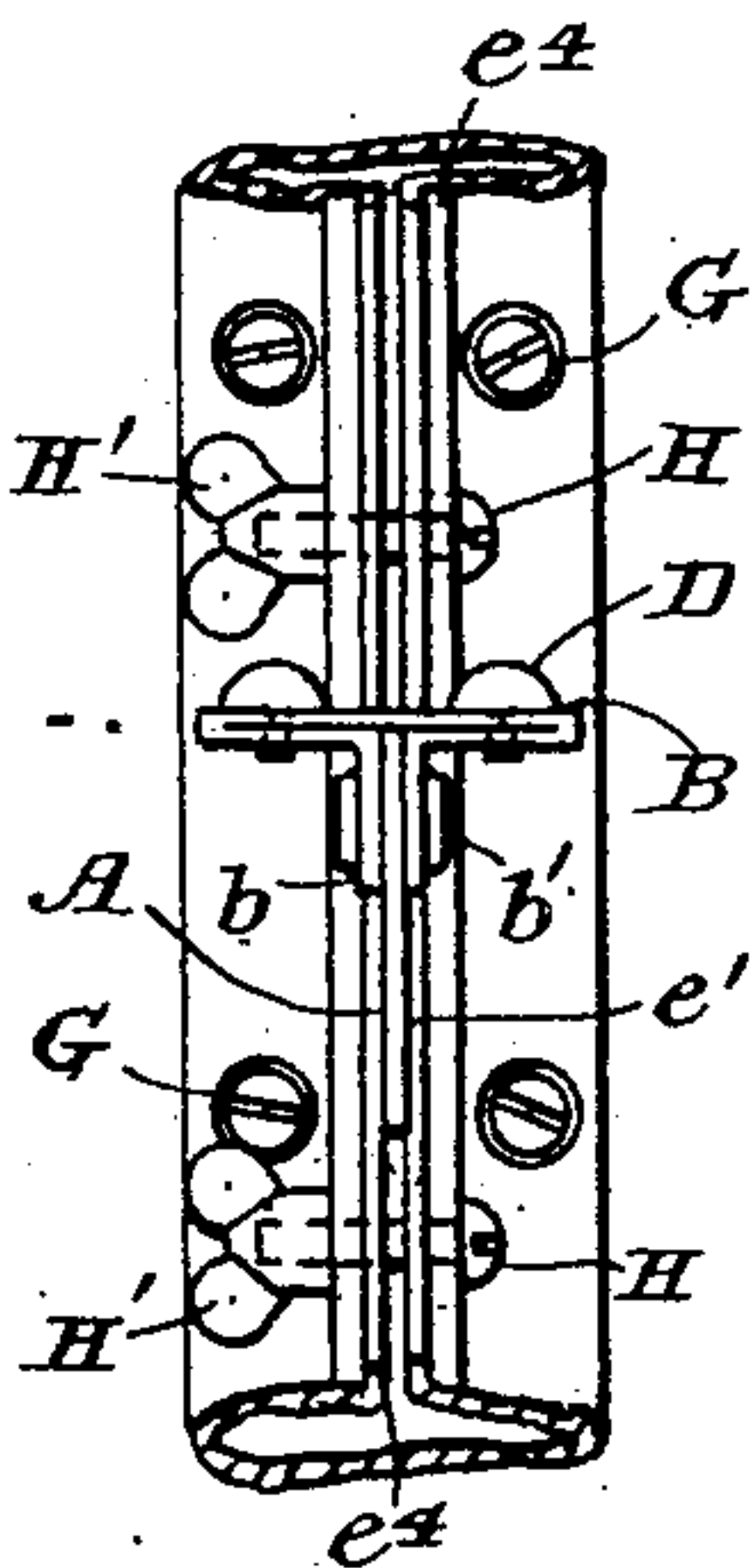
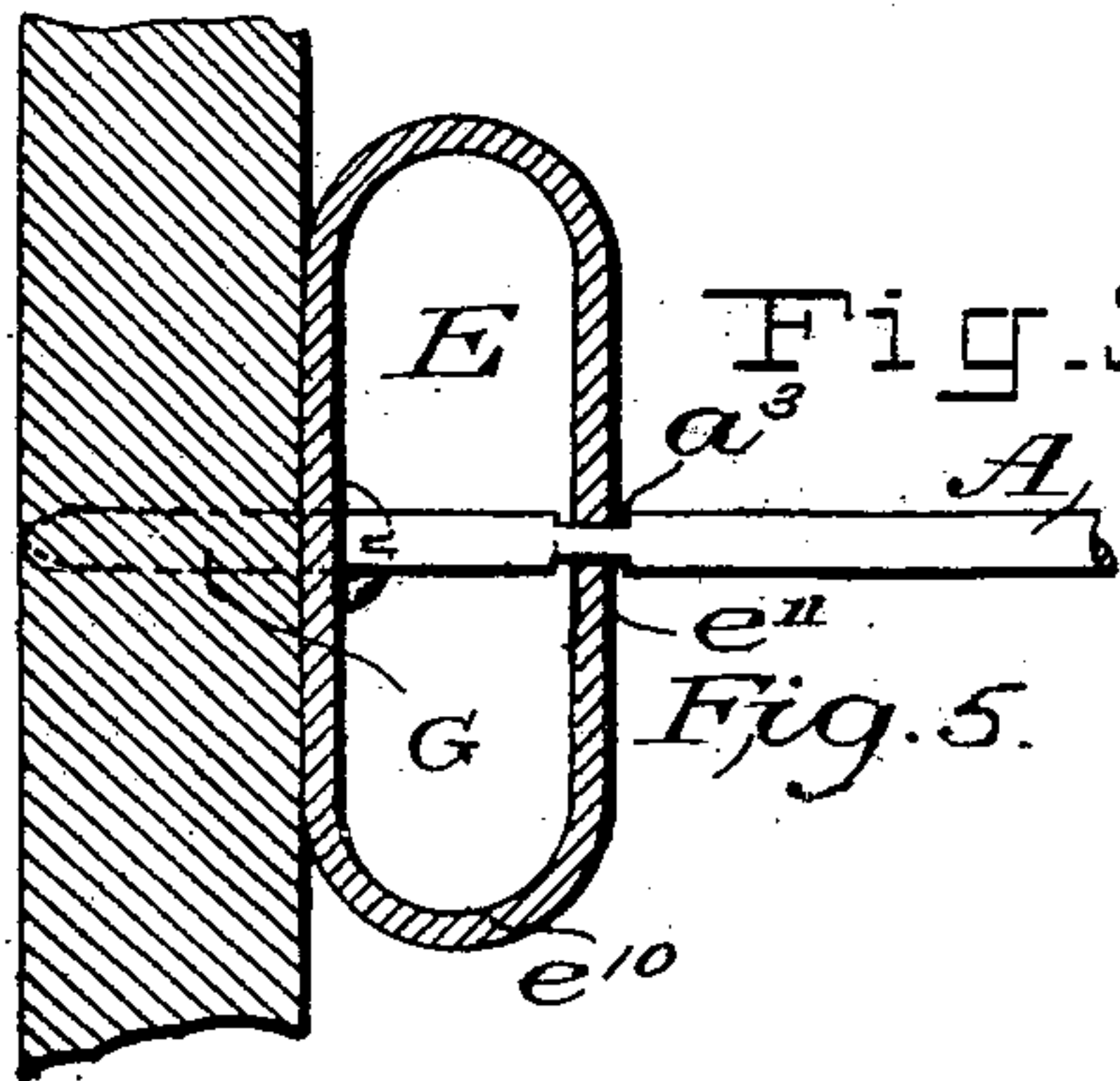
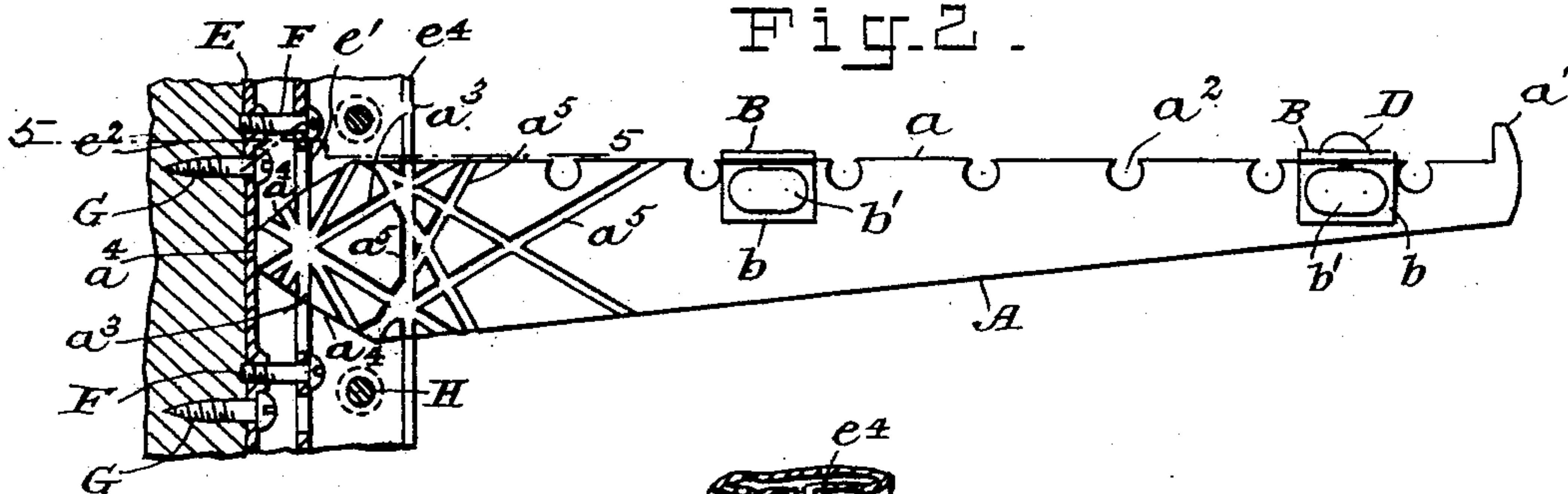


Fig. 2.



Witnesses:  
C. R. Bolton  
J. M. Earle

Inventor:  
H. F. Keil

By J. O. Fowler  
his Attorney.



# UNITED STATES PATENT OFFICE.

HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK.

## BRACKET AND SUPPORT.

SPECIFICATION forming part of Letters Patent No. 763,061, dated June 21, 1904.

Application filed October 25, 1902. Serial No. 128,805. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY FRANCIS KEIL, a citizen of the United States of America, and a resident of Bronxville, in the county of Westchester and State of New York, have invented a certain new and useful Adjustable Shelf-Support, of which the following is a specification.

My invention relates to appliances used for supporting articles, and in particular to the manufacture of brackets and in the method of securing the same to bearings, bars, or other stands for show-cases, window-fittings, and general purposes; and it has for its object the provision of an apparatus of the kind set forth simple in construction, inexpensive to manufacture, and which operates smoothly and efficiently in practical use.

To attain the desired end, this my invention consists in the construction, arrangement, and operation of parts herein set forth.

In order to enable my invention to be fully understood, I will proceed to explain the same by reference to the drawings which accompany and form a part of this specification, in which—

Figure 1 represents a plan view of a bracket and support therefor constructed according to my invention. Fig. 2 is a side elevation thereof, partly in section. Fig. 3 is an end view of the same. Fig. 4 is a sectional view of one of my supporting sliding plates or rests, taken on the line 4 4 of Fig. 1; and Fig. 5 is a sectional view taken on the line 5 5 of Fig. 2.

Like letters of reference indicate like parts in all the views.

Referring particularly to the drawings, A denotes my bracket, ordinarily consisting of a piece of steel stamped or pressed into suitable shape having a top face  $a$  and preferably provided with a pin, stud, or projection  $a'$ , located at the outer end thereof, and also, if desired, with a series of recesses or ratchet or toothed-shaped cavities  $a^2$  for the purpose of containing rods, tubes, wires, &c.

B is one of my supporting plates or rests constructed and arranged to slide upon the face of the edge  $a$  of my bracket, each of which plates or rests is made by preferably forming up a piece of steel in a T shape, in the side of the duplex or bifurcated stem or supporting

parts  $b$  of which are drawn up recesses  $b'$  constructed and arranged to contain elastic or flexible cushions C.

Into the relatively horizontal top of my rests or sliding plates B may be inserted cushioned top pins or screws D, if desired. Each side face of my bracket A is provided at the inner end thereof with a channel or preferably a plurality of channels, slots, grooves or ways  $a^3$ , or shouldered portions, ordinarily formed in both of the side and preferably vertical faces of the same, and the edge of said interior end of the bracket is preferably provided with an angular face or preferably a plurality of angular faces  $a^4$ , formed in parallel relation to said groove or grooves  $a^3$ . I sometimes form in the side faces of my bracket an additional outer channel or preferably plurality of channels, grooves, or ways  $a^5$ , formed in parallel relation to the inner groove or grooves  $a^3$  and the angular face or faces  $a^4$ .

The bearing or support for my bracket A consists of a preferably spring metal plate E, the sides  $e$  of which are formed or bent over upon itself so as to form an interior chamber and to provide two opposite lips  $e'$ , the parts being so arranged that when the bracket A is inserted in the bearing an angular face  $a^4$  will rest against the face of the plate E and the resilient lips  $e'$  will rest and be securely held in one of the pairs of grooves  $a^3$ .

In the plate E are drawn up bosses  $e^2$ , which are screw-threaded to hold the screws F, the heads of which may rest against the parts  $e$ . My bearing may be attached to a wall, partition, or other supporting-surface by means of screws G, which may bear upon the parts  $e$  or pass through orifices in the same and rest directly upon the plate E, as shown in Fig. 4. The parts  $e$  may, if desired, be again bent outwardly, as at  $e^3$ , and then inwardly again, so as to form a pair of outer opposite lips  $e^4$  in addition to the inner lips  $e'$ , which lips  $e^4$  are held by the resilience of the metal of which my bearing is formed in the channels or grooves  $a^5$ . The parts  $e^3$  may each be provided with an orifice to contain a screw H, constructed and arranged to coact with the wing-nut H'.

It is manifest that various omissions of some particulars could be made without materially



affecting the essential features of my invention or the operation of the remaining parts, and I do not, therefore, wish to be limited to the specific structural details of the organization  
5 herein set forth.

Obviously the elements of the structure described may be located at an angle to the plane in which they are shown. I accordingly use the words "horizontal," "vertical," and the  
10 like in a relative sense.

In operation after the bearing is secured in place the bracket A may be inserted in the said bearing or in either a horizontal or an upwardly or downwardly inclined relation  
15 thereto, according as to the position in which it is desired that the said bracket shall be maintained, the bracket shown in Fig. 1 being constructed and arranged to assume five different positions, although the positions in which it  
20 is desired to maintain a bracket constructed according to my invention may be varied by changing the number of grooves  $a^3$  and the angular faces  $a^4$ . When thus inserted in the bearing, one of the angular faces  $a^4$  will rest  
25 against the face of the plate E of the bearing and one of the pair of grooves  $a^3$  will be clamped by the resilient lips  $e'$ . While the parts are in this relative position, the bracket A may be adjusted by being moved up or down,  
30 so as to stand at any height desired, and after the proper height has been determined the screws F may be manipulated, thus rigidly clamping the parts together in an immovable relation. In case the bearing used is also pro-  
35 vided with the lips  $e^4$  at the time the bracket is inserted in the bearing the lips  $e'$  and  $e^4$  will respectively engage the grooves  $a^3$  and  $a^5$ , and in this event the screw H and wing-nut H' may be manipulated to cramp the parts together  
40 with or without the employment of the screws F.

In cases where a series of my brackets are arranged in parallel shelves, &c., may be placed upon the slide plates or rests B, which  
45 may be moved along the face  $a$  of the brackets in order to occupy any desired positions, or rods, wires, or tubes, &c., which may be inserted in the recesses, ratchet, or tooth-shaped cavities  $a^2$ , may be used in connection  
50 with the rests B or in lieu thereof.

It will be seen that my adjustable bracket and bearing therefor are of very simple construction and may be manufactured very economically and also that the same provides a  
55 very strong and durable device, the parts being adapted to be readily engaged together in a smooth and noiseless manner.

As it is evident that many changes in the construction, form, proportion, and relative  
60 arrangement of parts might be resorted to without departing from the spirit and scope of my invention, I would have it understood that I do not restrict myself to the particular construction and arrangement of parts shown  
65 and described, but that such changes and

equivalents may be substituted therefor, and that

What I claim as my invention is—

1. The combination with a bracket having one or more grooves or shouldered portions  
70 and one or more angular edge faces, of a support formed with a bearing-face to register with one of the said angular faces and also with resilient engaging means to coact with one of the grooves of the said bracket. 75

2. The combination with a bracket having one or more parallel pairs of grooves or shouldered portions, and one or more angular edge faces in parallel relation with said grooves,  
80 of a support formed with a bearing-face to register with one of the said angular faces and also with resilient engaging means to coact with one of the grooves of the said bracket.

3. The combination with a bracket having a plurality of pairs of grooves or shouldered  
85 portions disposed in angular relation to each other, and a plurality of angular edge faces, of a support formed with a bearing-face to register with one of the said angular edge faces and also with resilient engaging means  
90 to coact with one of the grooves of the said bracket.

4. The combination with a bracket having on the two faces thereof a plurality of pairs of grooves or shouldered portions disposed in  
95 angular relation to each other, and with another set of pairs of grooves or shouldered portions parallel thereto, and two or more angular edge faces, of a support formed with a bearing-face to register with one of the said  
100 angular edge faces and with engaging means to coact with one of the pairs of grooves of said bracket.

5. The combination with a bracket having on the two faces thereof a plurality of pairs  
105 of grooves or shouldered portions disposed in angular relation to each other and two or more angular edge faces, of a support formed with a bearing-face to register with one of the said angular faces and engaging means to coact  
110 with one of the pairs of grooves of the said bracket.

6. The combination with a bracket having a top edge or face of a sliding plate or rest to engage therewith and consisting of a piece of  
115 metal formed with a duplex stem or supporting part, in the sides of which are formed recesses, and cushions contained in said recesses.

7. The combination with a bracket having a plurality of grooves or shouldered portions  
120 disposed in angular relation to each other, of a hollow support formed with a bearing-face to register with the end of the bracket and a slot having an adjacent lip to engage with one of the grooves of the said bracket. 125

8. The combination with a bracket having a groove, of a support therefor having a slot and an adjacent lip  $e'$  to engage the said groove, the said support being also formed with a screw-threaded boss  $e^2$  formed in the same, 130



and also of a screw to rigidly clamp the parts together.

5 9. A bracket having the top edge or face, in combination with a sliding plate or rest B to engage therewith and consisting of a piece of metal formed with a duplex or bifurcated stem or supporting part *b* and having an open lower portion and a cushion D located in the top thereof.

10 10. The combination with a bracket having a groove in its side to abut against a support, of a support provided with spring-lips to engage said groove, the said bracket also having a portion extending rearwardly of the groove and constructed and arranged to engage the  
15 inner rear wall of the support.

11. The combination with a hollow support having a longitudinal channel, and formed with integral projections having inwardly-

projecting lips, of a bracket-arm having a plu- 20  
rality of angular faces at its rear end and a plurality of grooves or shouldered portions forward of and in parallel relation to said angular faces, the rear end of the arm being adapted to bear against the inner rear wall of 25  
the support, the edges of the channel engaging one series of the grooves or shouldered portions and the lips on the projections being adapted to engage another series, and means for clamping said projections to the arm. 30

In testimony of the foregoing specification I do hereby sign the same, in the city of New York, county and State of New York, this 24th day of October, A. D. 1902.

HENRY FRANCIS KEIL.

Witnesses:

F. A. WURZBACH,

H. B. AMMON.