

(No Model.)

3 Sheets—Sheet 1.

F. ROCKSTROH, M. TEPPIG & H. HERZIG.  
WATER GAGE.

No. 545,727

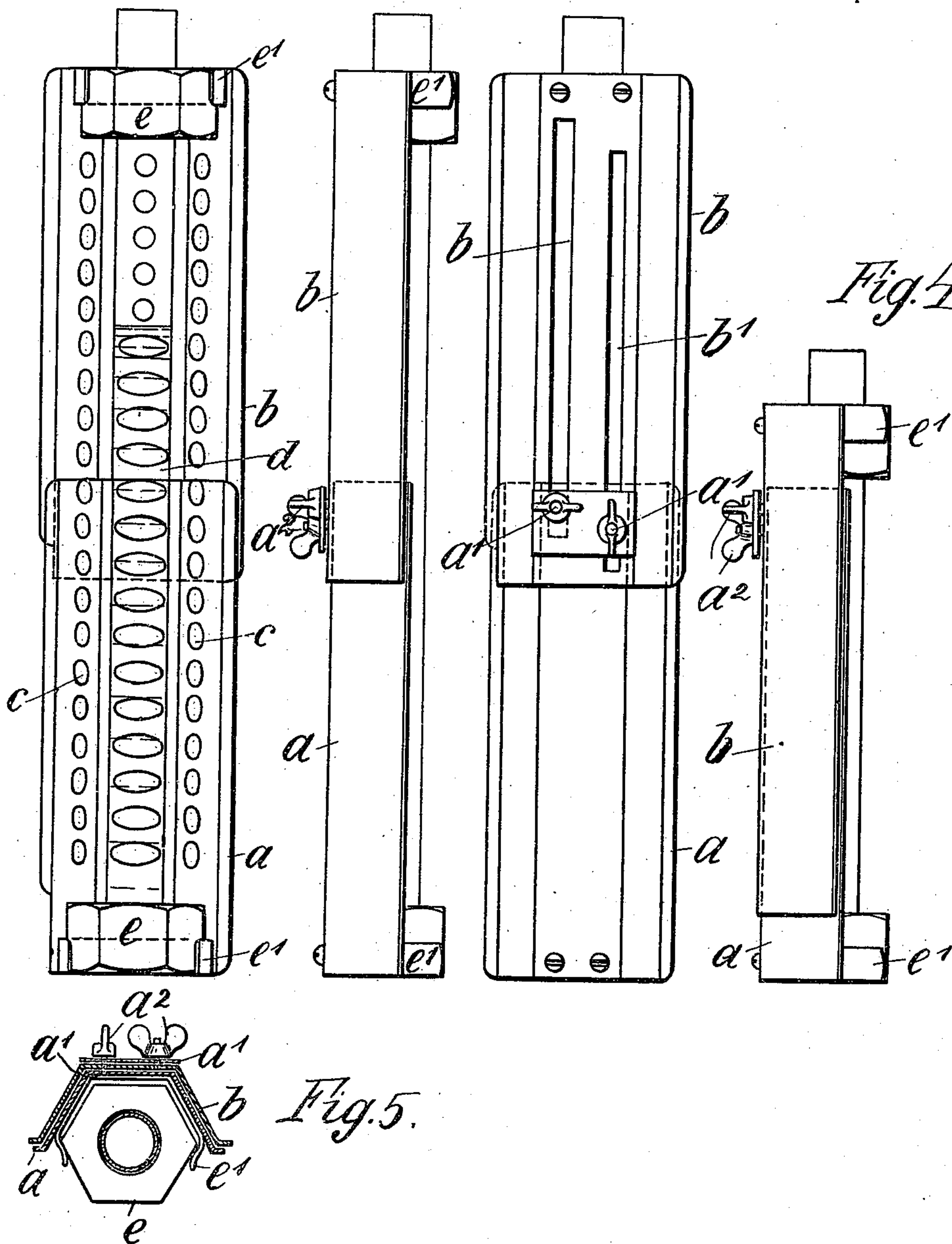
Patented Sept. 3, 1895.

*Fig. 1.*

*Fig. 2.*

*Fig. 3.*

*Fig. 4.*



WITNESSES:

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Fritz Rockstroh,  
Max Teppig &  
Hermann Herzig.

BY

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ATTORNEY.

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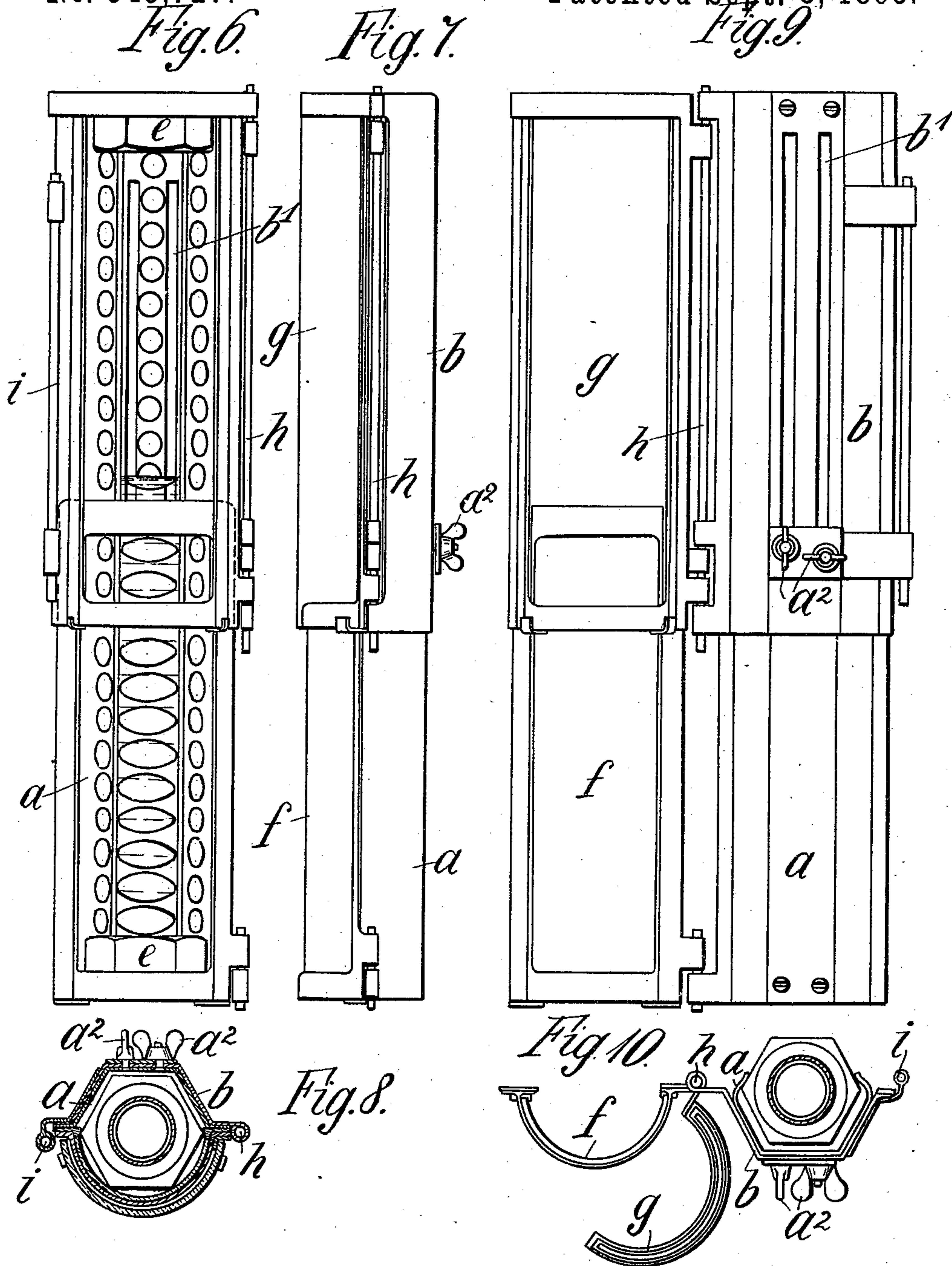
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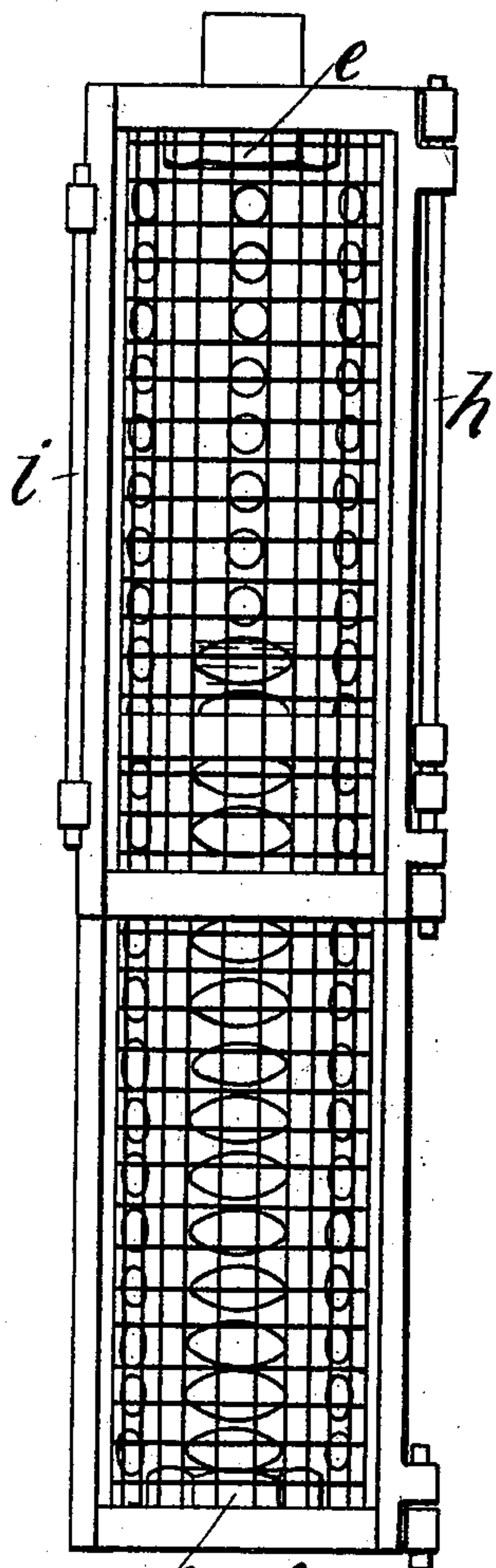
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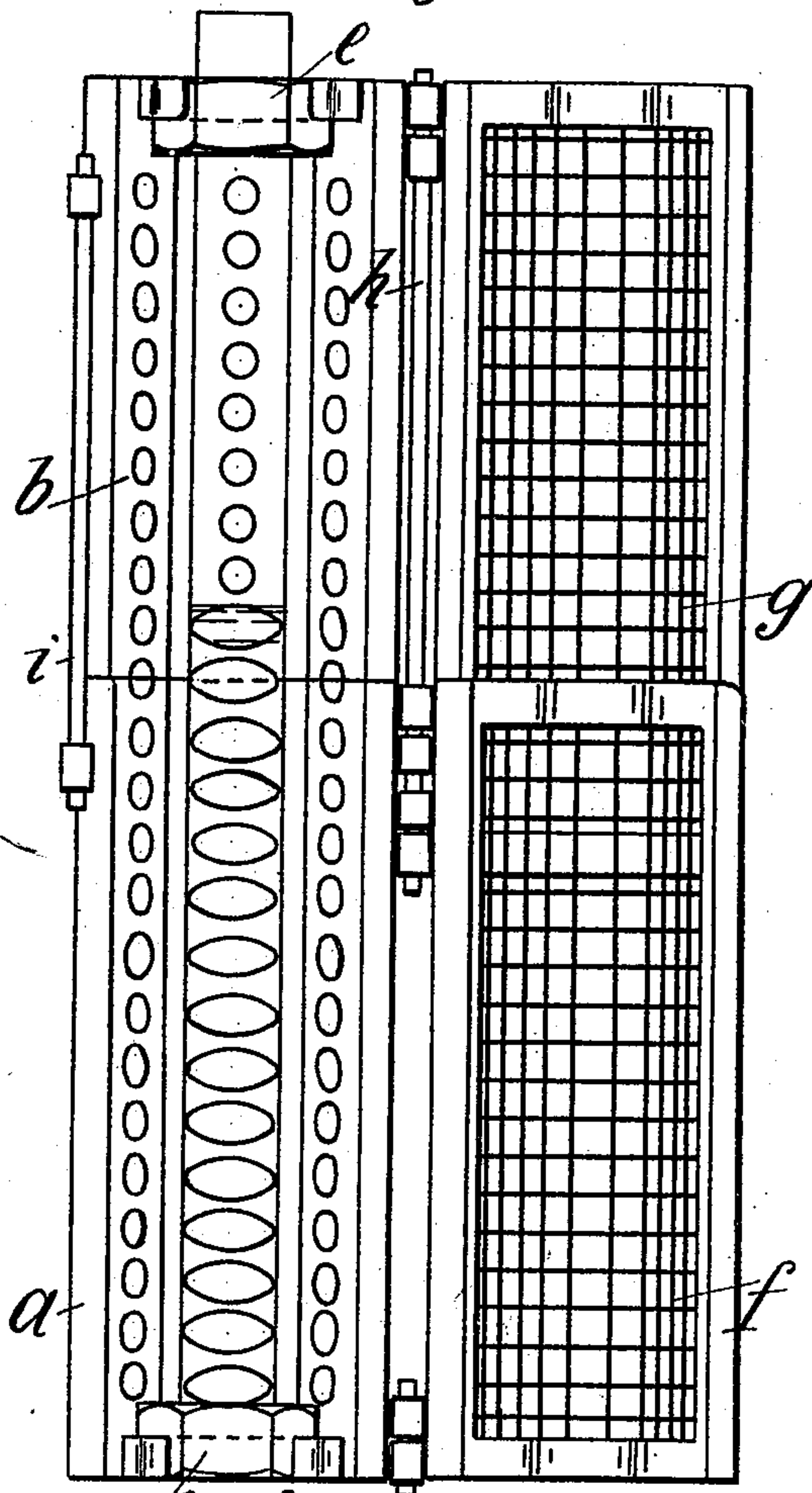
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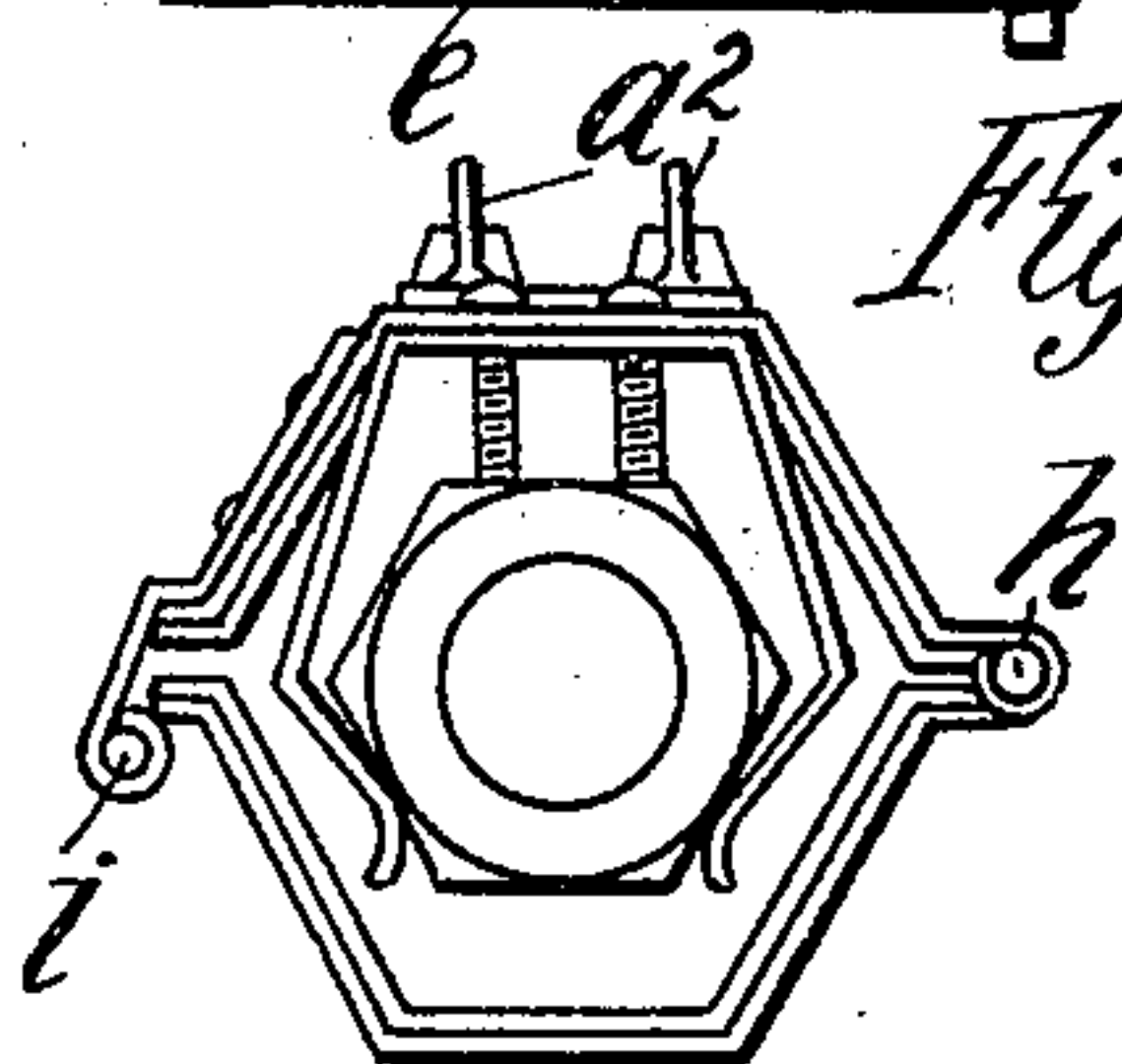
*Fig. 11.*



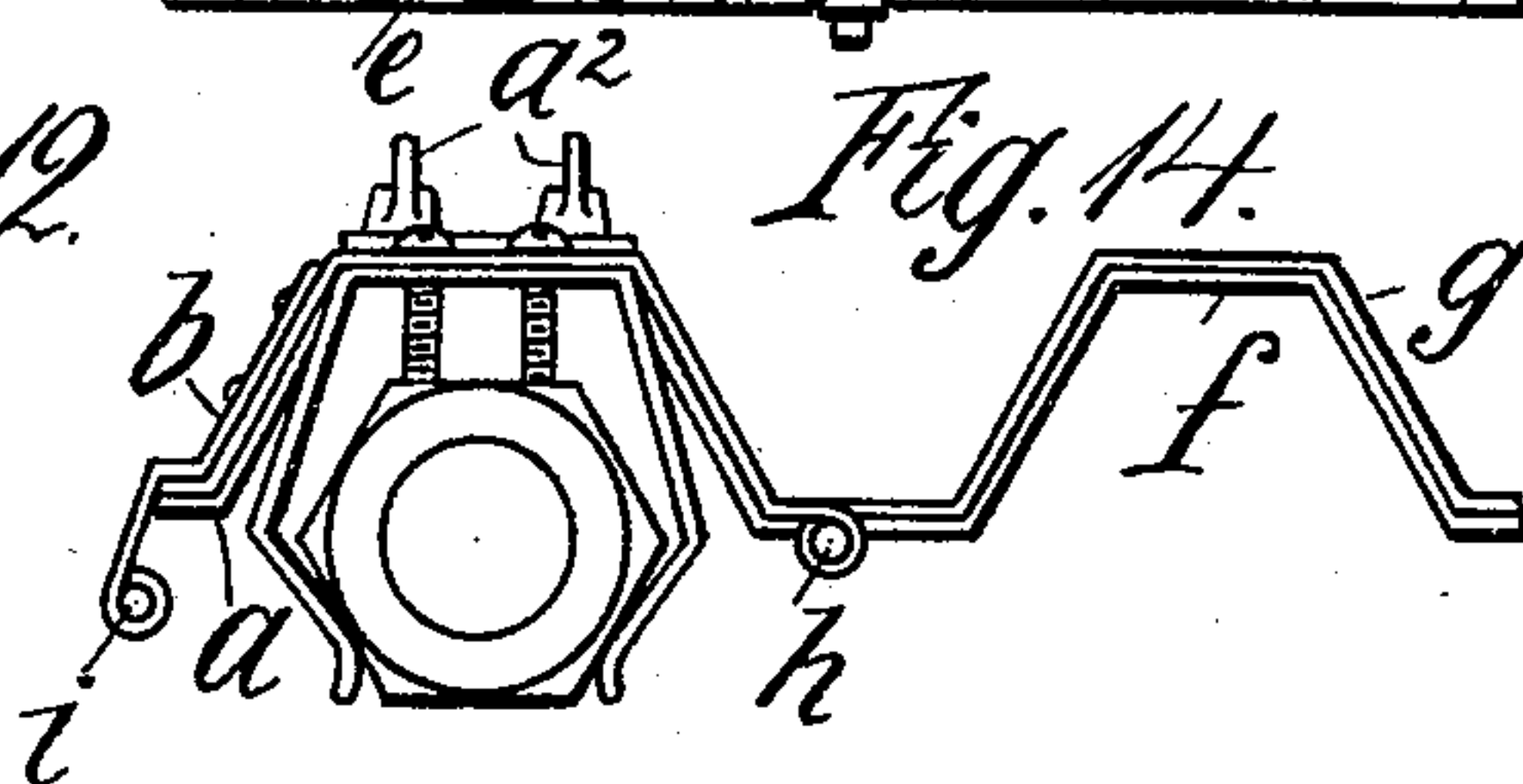
*Fig. 13.*



*Fig. 12.*



*Fig. 14.*



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# UNITED STATES PATENT OFFICE.

FRITZ ROCKSTROH, MAX TEPPIG, AND HERMANN HERZIG, OF GOERLITZ,  
GERMANY.

## WATER-GAGE.

SPECIFICATION forming part of Letters Patent No. 545,727, dated September 3, 1895.

Application filed October 5, 1894. Serial No. 524,962. (No model.)

*To all whom it may concern:*

Be it known that we, FRITZ ROCKSTROH, MAX TEPPIG, and HERMANN HERZIG, subjects of the Emperor of Germany, residing at Goerlitz, Prussia, Germany, have invented certain new and useful Improvements in Water-Gages, of which the following is a specification.

Our improvements relate to water-gages, and more particularly to such having reflectors.

The object of our invention is to provide reflectors on water-gages, which may be shortened or lengthened to fit different lengths of such gages.

It is a well-known fact that the water-gages or glasses of boilers vary in length, and to provide a reflector which may be easily and effectively adjusted and secured to a water-gage the reflector is made of two sections, of which one is slidingly mounted on the other, and each of the sections is provided with a device for holding the said sectional reflector in position on the said gage. If preferred, a safety or projecting jacket of two sections hinged to the respective reflector-sections may also be provided. In such case the water gage or glass is entirely surrounded—for instance, in the rear by the reflector and in front by the jacket of transparent material or wire-netting.

The invention will be more fully understood taken in connection with the accompanying drawings, forming part hereof, and in which—

Figure 1 is a front view of a water-gage provided with a movable reflector. Fig. 2 is a side view thereof. Fig. 3 is a rear view. Fig. 4 is a horizontal section, and Fig. 5 shows a side view, the several parts being pushed together. Fig. 6 shows a modification of our water-gage, having a reflector and a safety-jacket. Fig. 7 is side view thereof. Fig. 8 is a horizontal section. Fig. 9 is a rear view, the jacket being opened, and Fig. 10 is a plan view thereof. Fig. 11 is a front view of a modification, the glass jacket being substituted by a jacket from wire-gauze. Fig. 12 is a plan view thereof. Fig. 13 is a front

view, the jacket being opened; and Fig. 14 is a plan view thereof.

In Figs. 1 to 5 we have represented a water-gage the rear part of which is surrounded by a reflector. This reflector is composed of two semicircular or  $\nabla$ -shaped plates  $a$   $b$ , one of which is sliding upon the other. These plates, which are preferably enameled at the inner side, are provided at the said side with colored scales, lines, or points  $c$ . These colored points are retracted by the water within the water-gage, so as to see the water-level from all sides, even at a greater distance, as shown by Fig. 1.

In order to be enabled to move the plates  $a$   $b$  one upon the other, we provide one plate  $a$  with screw-bolts  $a'$ , which are guided within the slots  $b'$  of the other plate  $b$ . The plates  $a$   $b$  are fixed or adjusted by means of the nuts  $a^2$ . At the lower and at the upper end the plates  $a$   $b$  are fitted with spring-holders  $e'$ , to which the water-gage is secured by means of the nuts  $e$ .

In Fig. 1 the plates  $a$   $b$  of the reflector are elongated or pushed outside. If it is desired to apply the reflector to a smaller water-gage, it is only necessary to loosen the nuts  $a^2$  and to push together the plates, as shown in Fig. 4.

A modification of the above-described arrangement is represented in Figs. 6 to 10. Also in this construction is shown a reflector composed of two movable plates; but the reflector is provided with a movable safety-jacket, consisting of glass and preventing the water-gage from cracking, as the latter is secured against alteration of temperature—for instance, in the backward movement of the locomotives. The said glass jacket consists of two superposed parts  $f$   $g$ , which are secured to a metal frame. These metal frames are hinged to the plates  $a$  by means of a pin  $h$ , and provisions are made for closing the jacket. In the example shown we effect this by a spring-pin  $i$ , behind which the end flaps of the metal frame are clamped.

In Figs. 11 to 14 is shown a modification in which the glass jacket is substituted by a jacket from wire-gauze. While the glass jacket is designed to prevent the water-gages



from cracking by reason of alteration of temperature, the jacket from wire-gauze has for its object to prevent the accidental breaking of the water-gages and the flying about of splinters.

5 It is obvious that by the described construction the manufacture of the armature is greatly simplified, as for water-gages of different size the same armature may be  
10 used.

What we claim is—

1. As a new article of manufacture a reflector adapted to be mounted on water-gages of different length, comprising two channeled or  
15 hollow sections, one fitting within the other and partly surrounding the said water-gage, a spring holder on the outer ends of each section adapted to engage the end portion of the  
20 gage, one or more screws on one of the said sections, said screws passing through slots of the other section to allow of lengthwise adjustment and clamping of the sections, substantially as and for the purposes set forth.

2. In a water-gage, a reflector capable of being mounted on water-gages of different  
25 length, comprising two channeled or hollow sections, one fitting within the other and partly surrounding the said water-gage, a spring holder on the outer ends of each section adapted to engage the end portion of the  
30 gage, one or more screws on one of the said sections passing through slots of the other sections to allow of lengthwise adjustment and clamping in place of the sections, in combination with a protecting jacket composed  
35 of two adjustable sections, which are hinged to the respective sections of the reflector, substantially as and for the purposes set forth.

Signed at Zittau, in the Kingdom of Saxony, Germany, this 15th day of September, 1894.

FRITZ ROCKSTROH.

MAX TEPPIG.

HERMANN HERZIG.

Witnesses:

OSCAR GEHRENBECK.

HERM ERMISCH.