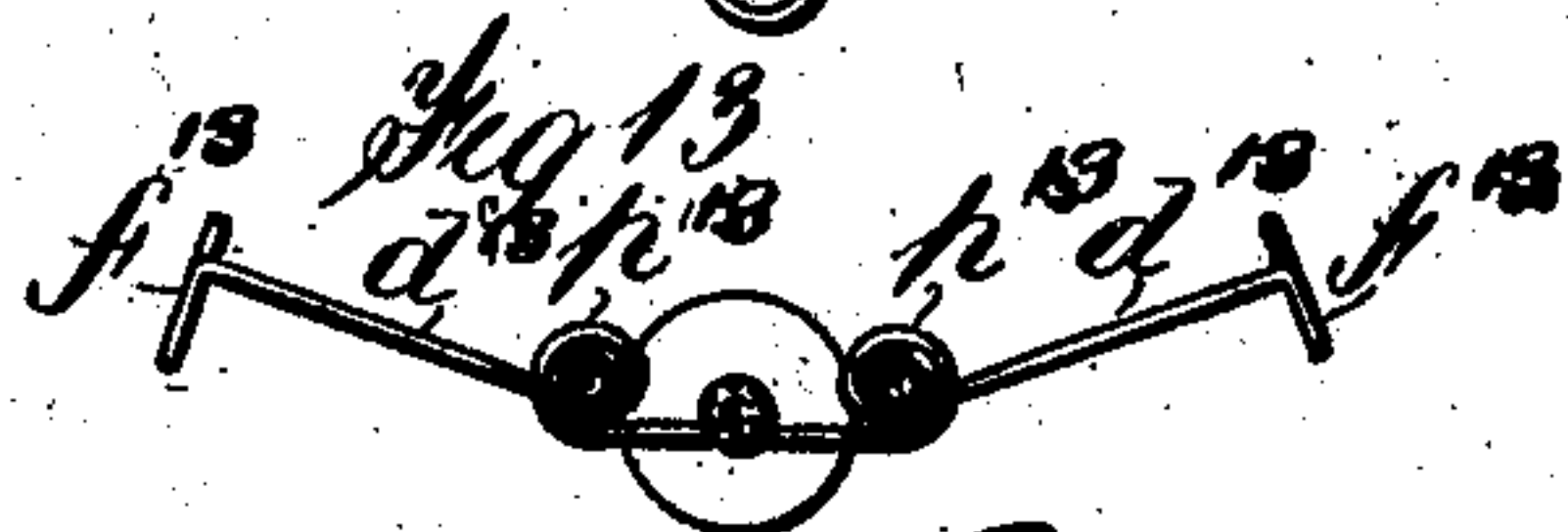
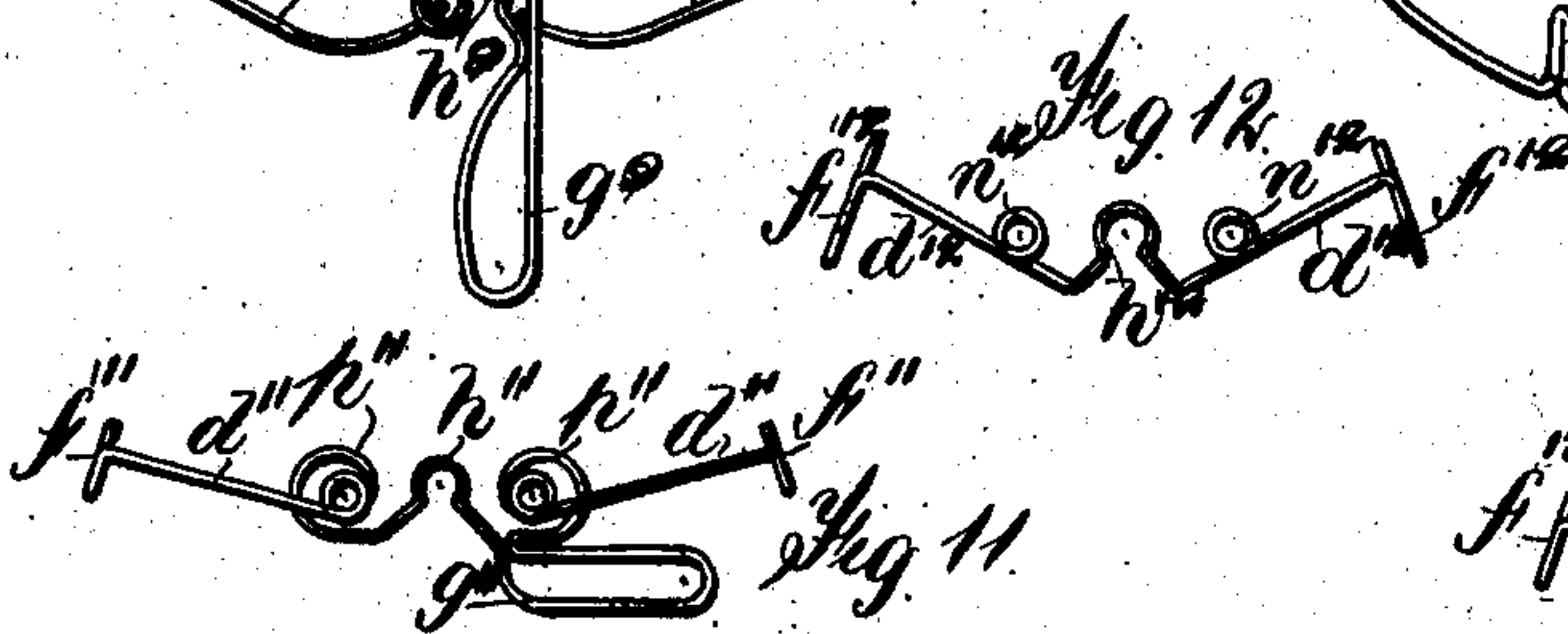
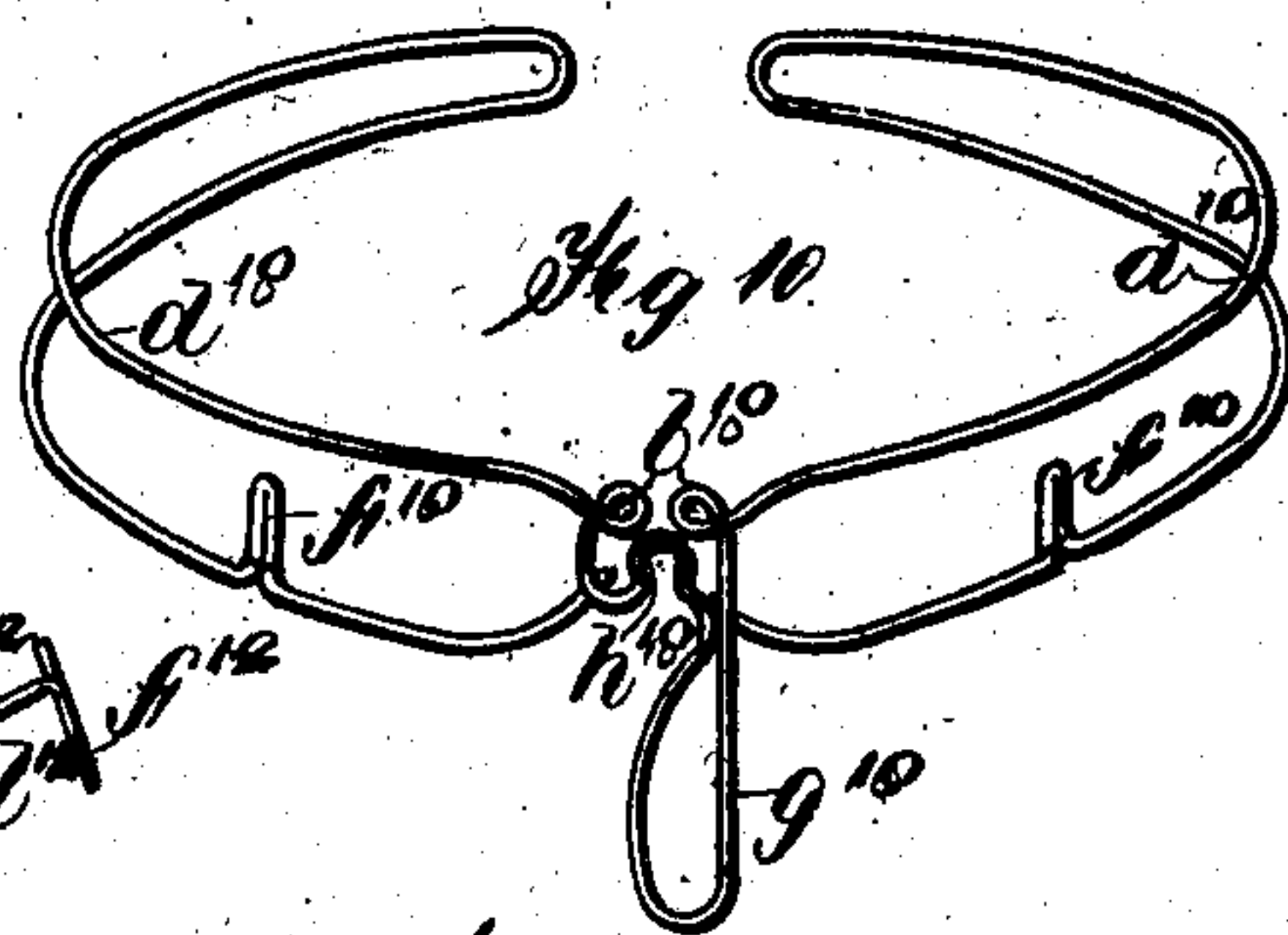
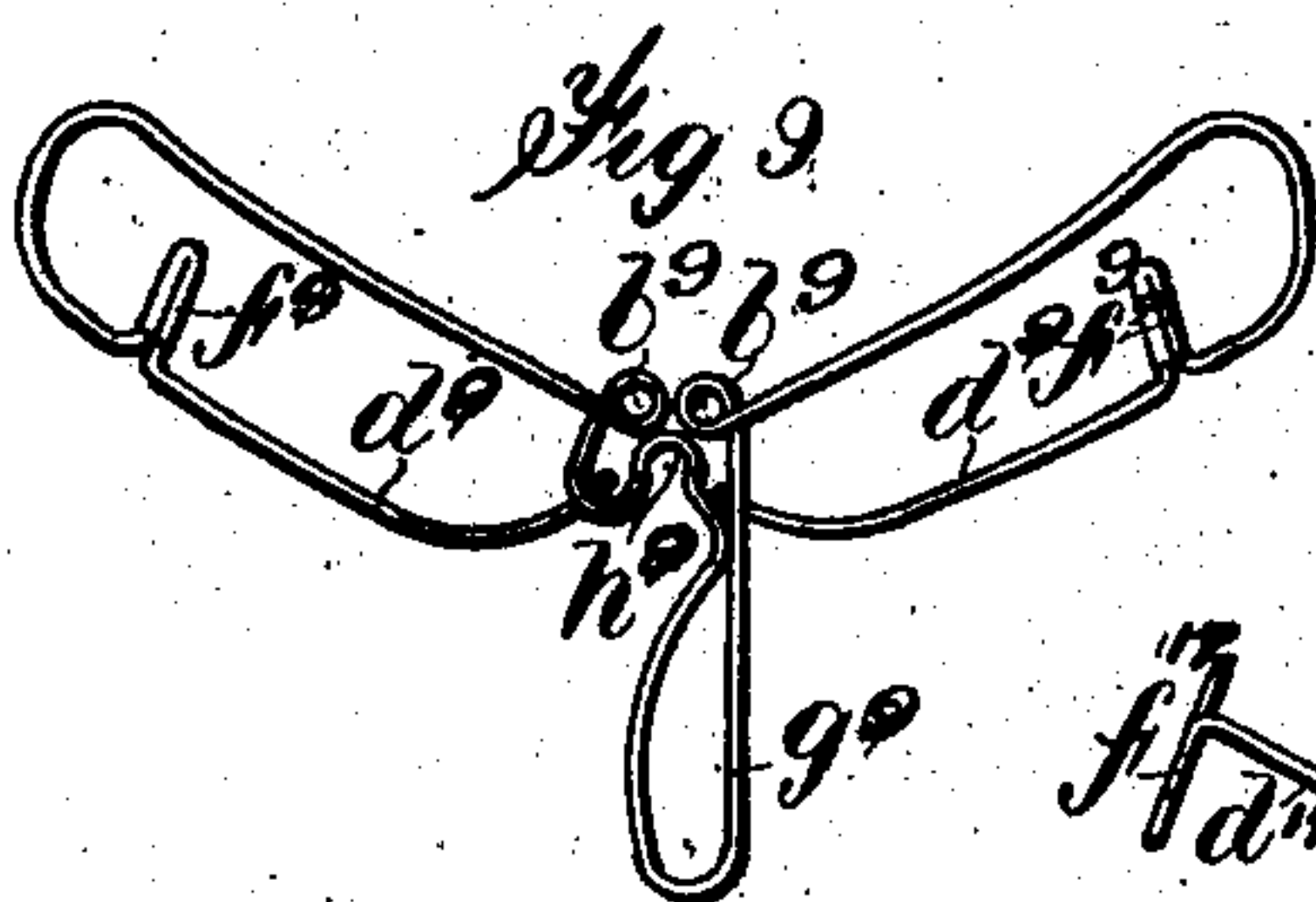
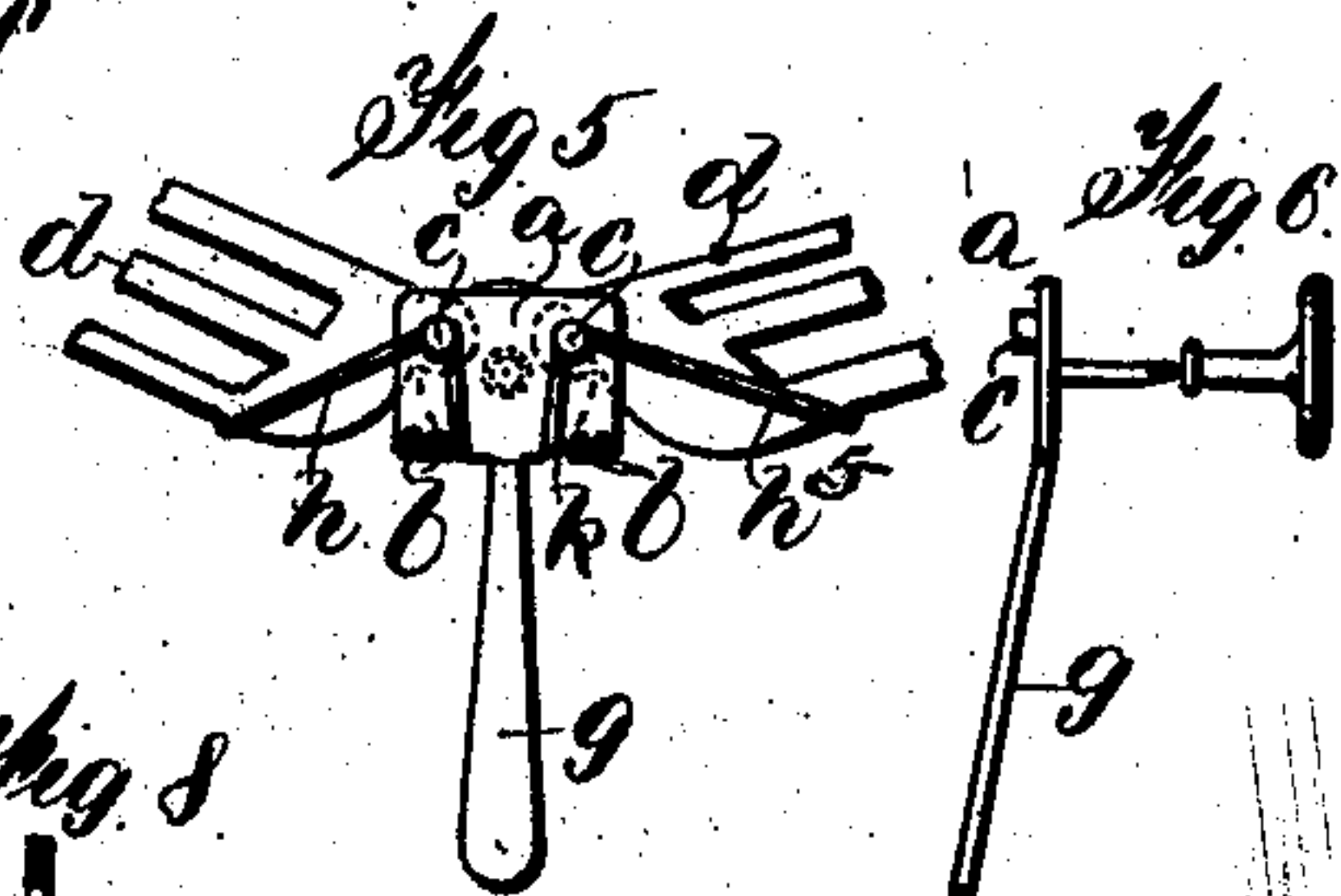
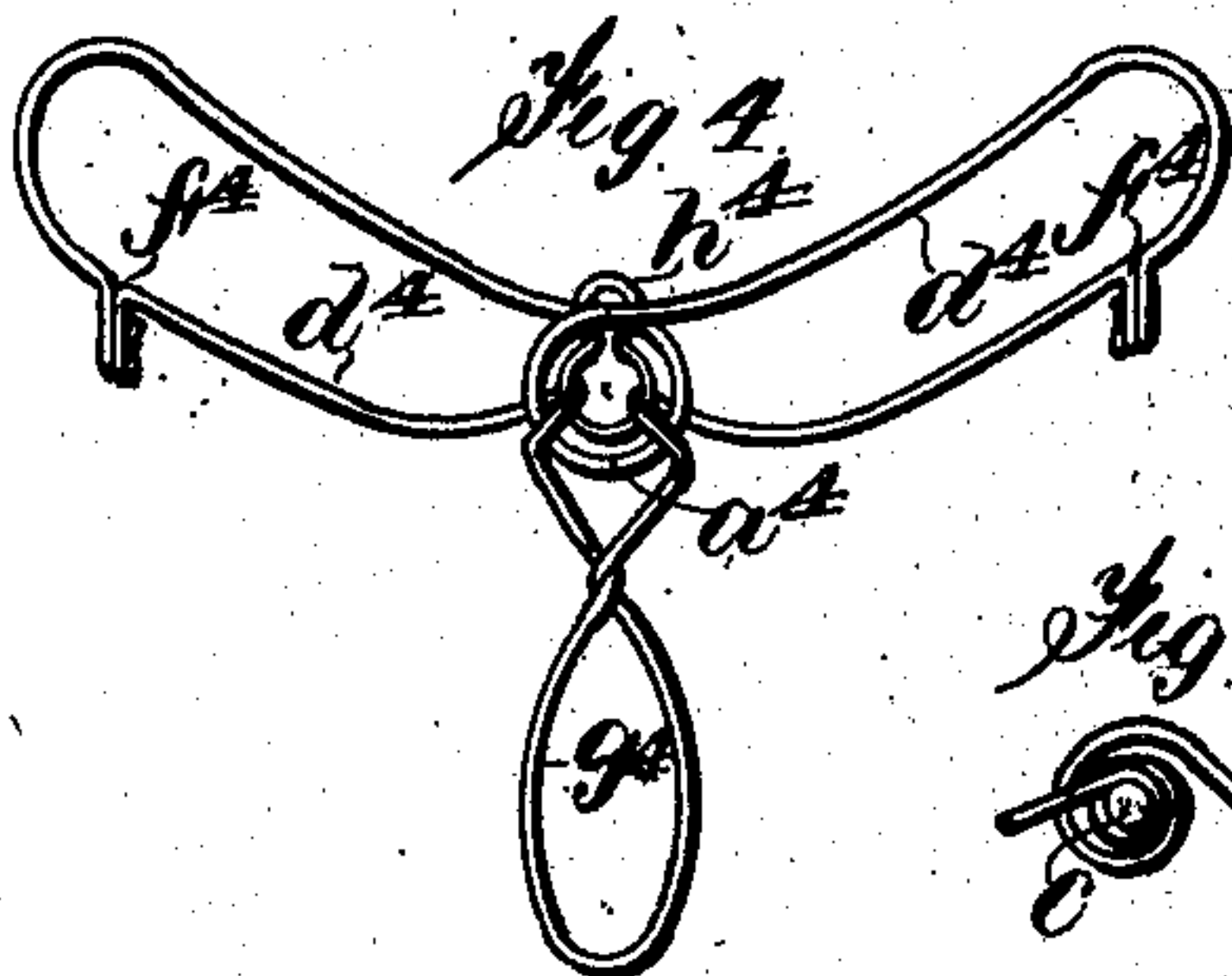
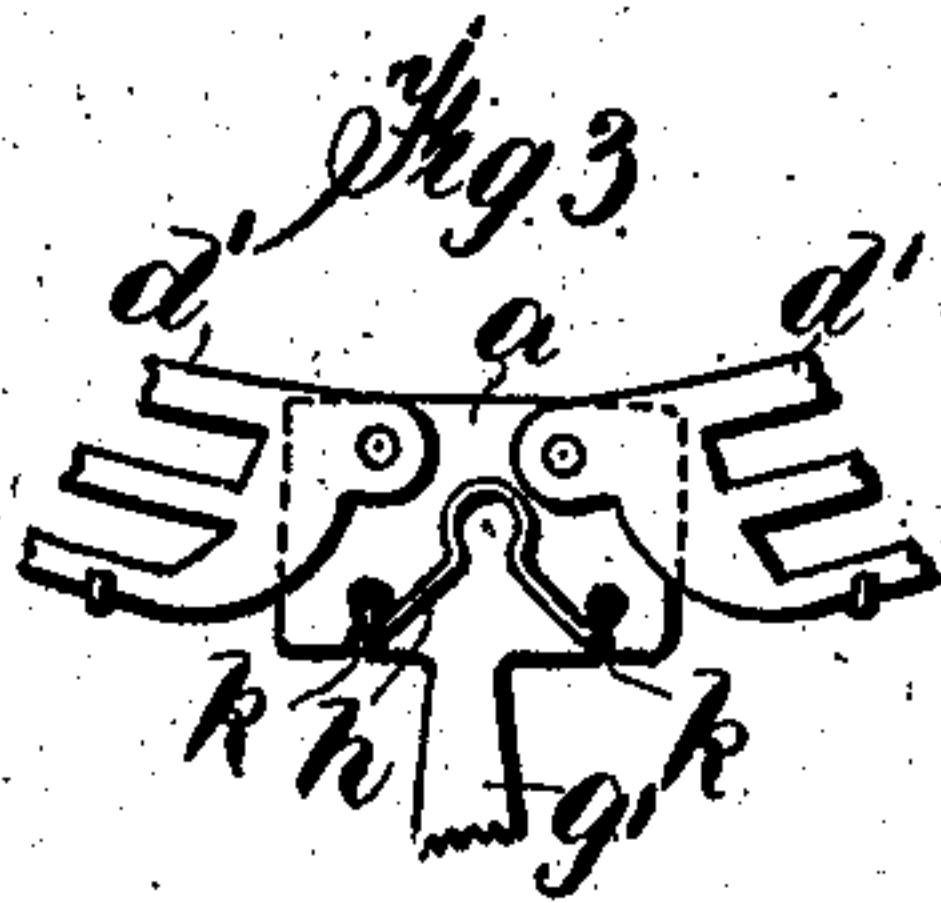
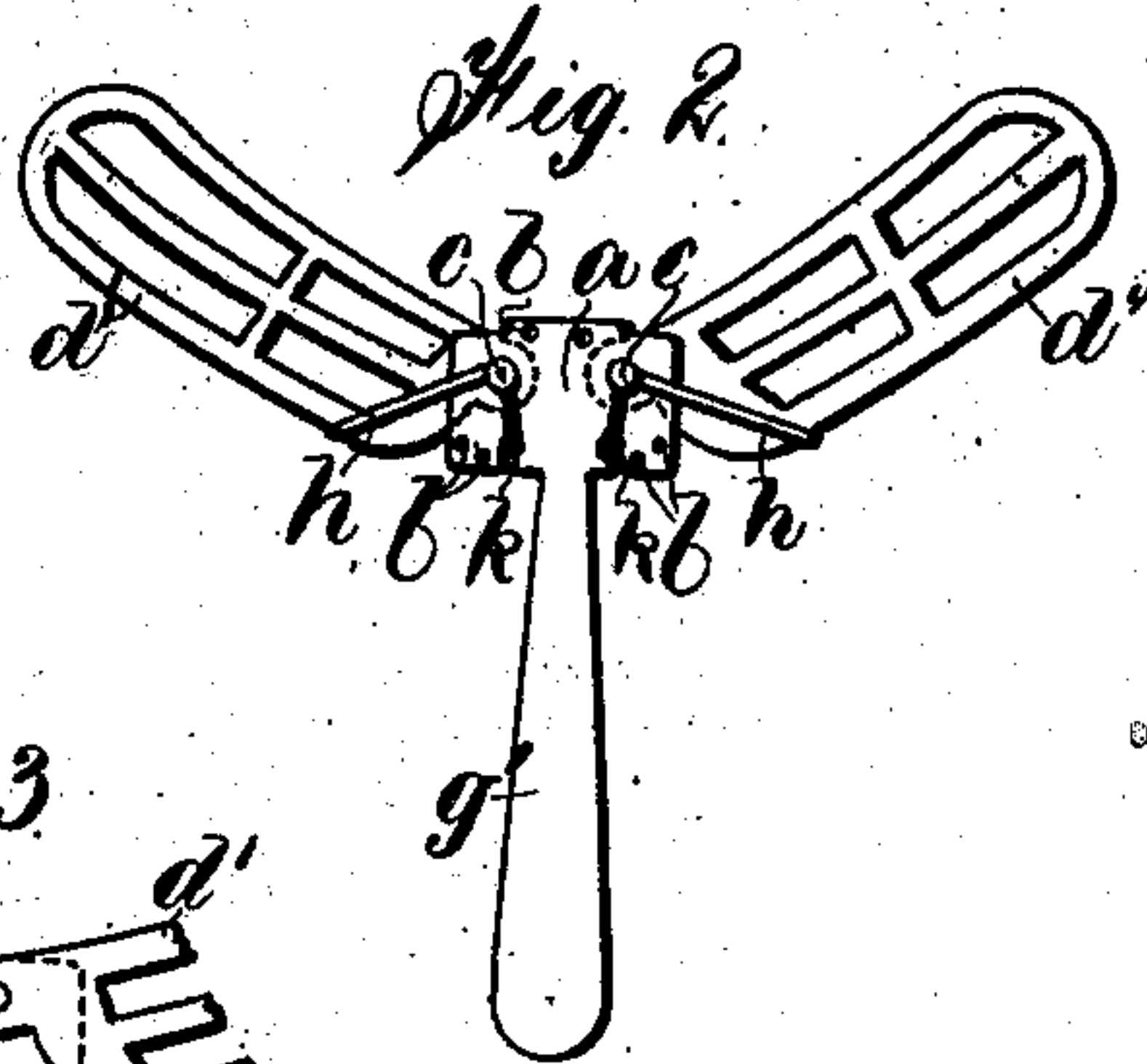
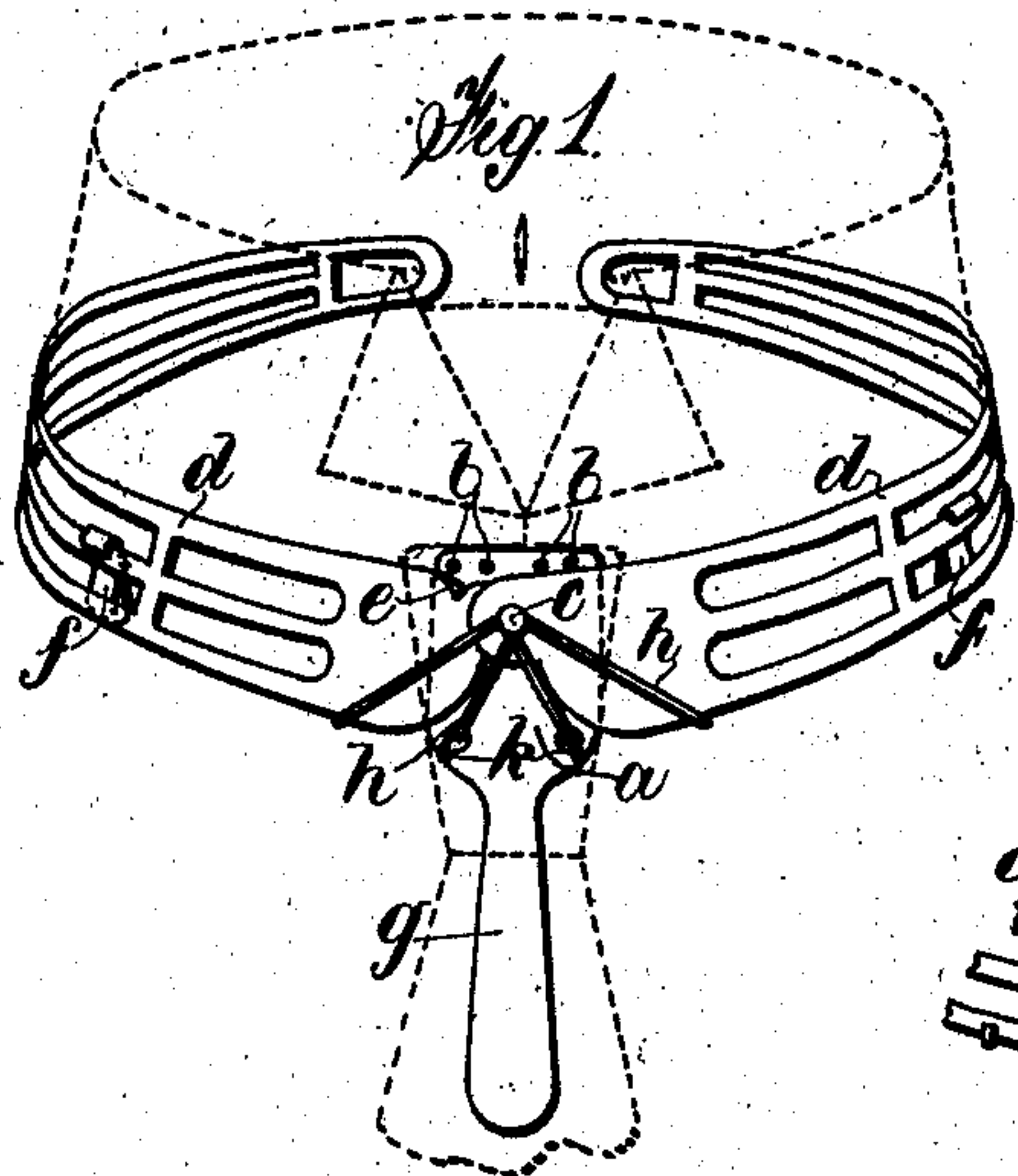


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SUPPORTING FRAME FOR NECKTIES.  
APPLICATION FILED DEC. 3, 1906.

899,902.

Patented Sept. 29, 1908.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

FREDERIC WALTHER RAUPACH, OF LONDON, ENGLAND.

## SUPPORTING-FRAME FOR NECKTIES.

No. 899,902

Specification of Letters Patent.

Patented Sept. 29, 1908.

Application filed December 3, 1906. Serial No. 346,127.

*To all whom it may concern:*

Be it known that I, FREDERIC WALTHER RAUPACH, a subject of the German Emperor, residing at 59 Gresham street, in the city of London, England, have invented certain new and useful Improvements in and Relating to Supporting-Frames for Neckties; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object improvements in supporting frames or attachments for neckties or scarfs for men's or ladies' wear, and it relates more especially to the construction of the skeleton or former upon which made-up scarfs or neckties are built, to certain improvements in mechanical substitutes for the neckbands usually employed and also to means of adjusting such substitutes for the neck band to the conformation of the collar.

In the usual form of my invention, I make a frame of wire, stamped metal or other suitable material such frame having a central portion upon which the necktie is afterwards sewed, which is provided with a central loop of wire, stamped metal or the like.

Attached pivotally or by any other convenient means, I place by preference two extensions or arms of such shape and of such curve as may encircle or partly encircle the collar to which the necktie is attached by means of the beforementioned wire or metal loop. On each side of the beforementioned frame and by preference pivoted thereto are the upwardly and inwardly extending arms which can be made out of wire or can be stamped from steel suitably hardened and tempered.

Attached to a convenient portion of the lower part of the arms may be hooks of such shape as to prevent the said arms from rising beyond a certain limit, by means of the loops engaging in the under edge of the collar. The arms, when covered with suitable material, act as a substitute for the collar band, fitting closely to the collar by means of the natural spring in the metal which gives these arms the desired upward and inward tendency. In order that they may retain their proper position on the collar in the case of the stamped metal arms a small spring having an upward tension is fixed to the frame and forces up the arms.

I attach to the under part of the central frame a handle, extending preferably downwards or sidewise so as to facilitate the fitting on and removal of the necktie. The arms may be attached by clips, rivets or springs pivoted or otherwise as may be desired to the before mentioned frame. To enable the extending arms to keep their form and with the object of rendering them exceedingly flexible and adaptable to the external shape of the collar while being worn, they may be constructed of longitudinal bars or straps having traverse bars or straps for giving the necessary strength. In this way when the frame in the center and the arms are covered with silk or other suitable material, the said arms form an imitation band extending over a certain distance round the collar of the wearer, thus doing away with the usual material or "stuff" bands and the necessity of fastening them or buckling them as is now the case.

In order to adapt this invention to turned over collars, the arms are reduced to suitable length so as to adjust themselves conveniently between the outer and inner portion of the said collars.

Various forms of springs may be employed for rendering the arms more flexible and easier to adjust. In place of a loop I may use any of the well-known collar stud mechanisms, such as a clip collar stud, push-in stud or otherwise so as to enable me to attach the necktie or scarf more easily or readily to the collar.

With my invention it is only necessary, when about to use the necktie, to open the extending arms place them rapidly in their proper relation to the collar and either allow the loop to fall over the stud head or place the stem into the hole of the collar stud according to which form of the attachment I adopt. And in order that my said invention may be better understood, I will now proceed to describe the same with reference to the drawings accompanying this specification, in which:—

Figure 1 shows one form of the supporting frame or attachment; Fig. 2 shows a similar form of the device except that the arms are shorter, this form being suitable where a turned down collar is worn. Fig. 3 shows a back view of these two forms to illustrate the loop; Fig. 4 shows another form of the device constructed of twisted wire; Fig. 5 shows another form of the device; Fig. 6



shows a detail thereof. Figs. 7 and 8 show details hereinafter referred to. Figs. 9 to 10 inclusive show other forms of the device made entirely of bent wire. Figs. 11, 12 and 13 inclusive show forms of my invention in which the wire is so bent as to give additional resiliency to the arms.

The same letters of reference are employed to denote the same parts in all the views:—

*a* Fig. 1 shows a frame of stamped metal but it may be made of wire or other suitable material as hereinafter explained. The frame *a* is provided with perforations such as those at *b*, which may be utilized in sewing the covering, forming the tie, to the frame.

*c* is a stud fixed to the frame *a* forming a pivot on which the arms *d* are pivoted. These arms *d* may be formed of stamped springy metal and provided with longitudinal bands and cross pieces. One of the arms *d* is provided with a suitable projection *e* forming a stop, for limiting the motion of the arms *d* with respect to one another.

*f* are hooks on the arms *d* for taking under the collar. One of these is shown clearly at Fig. 8. *g* Fig. 1, represents a handle fastened to or formed with the plate *a*. *h* is a wire bent as shown at Fig. 3 at the back to form a loop to take over the collar stud. This wire, in the case of the device shown at Fig. 1, passes through holes or slits *k* in the plate *a* and may be bent over the stud *c* as shown at Fig. 7, and then carried down on each side and bent under the arms *d* so as to form a spring to press them normally upwards until their motion is stopped by the stop *e*.

In the modifications shown in Figs. 2 and 3, the parts *d'* are made shorter than the parts *d* in Fig. 1, and the part *g'* is made integral with the plate *a*.

It is to be observed that the loop *h* in all cases is shaped wide at the bottom and contracting towards the top so as to guide the stud easily into the right position.

Referring to Fig. 4, in this case the device is composed entirely of twisted wire in one or several pieces. The portion *a'* is equivalent to the frame and the extensions *d'* equivalent to the arms, while the part *g'* forms the handle, *h'* is the equivalent of the loop for taking over the collar stud. *f'* is the equivalent to the hooks for taking under the collar.

Referring to Fig. 5, this form of the device is similar to that shown at Fig. 2, except the wire *h<sup>5</sup>* is slightly modified as shown, as well as the pins forming a part of the push pin stud, as best illustrated in Fig. 6.

Figs. 9 to 13 show other forms of the device made entirely of bent wire. Referring first to Fig. 9, *d<sup>9</sup>*, *d<sup>9</sup>* are the equivalent to the arms *d*. *f<sup>9</sup>*, *f<sup>9</sup>* are the equivalent to the hooks *f* taken under the collar. *g<sup>9</sup>* is the handle. *h<sup>9</sup>* is the loop for taking over the stud, and

the loops *b<sup>9</sup>* the equivalent of the holes *b*. The letters *g<sup>10</sup>*, *h<sup>10</sup>*, *b<sup>10</sup>*, *f<sup>10</sup>* and *d<sup>10</sup>* represent similar and corresponding parts in Fig. 10, which shows the arms *d<sup>10</sup>* much longer than the arms *d<sup>9</sup>* in Fig. 9.

Referring now to Figs. 11, 12 and 13. In these forms of the device the wire is so bent as to give additional springiness to the parts *d<sup>11</sup>*, *d<sup>12</sup>*, and *d<sup>13</sup>*. This is effected in the case of the form shown at Fig. 12 by giving the wire arms *d<sup>12</sup>* a single twist at *n<sup>12</sup>* and in those shown at Figs. 11 and 13 by giving the arms *d<sup>11</sup>* and *d<sup>13</sup>* a double twist, shown at *p<sup>11</sup>* and *p<sup>13</sup>*, similar to the twist shown at Fig. 7. In Fig. 11 the wire is bent so as to form a horizontal handle *g<sup>11</sup>*. At Fig. 13 the device is shown in combination with a push stud similar to that shown at Fig. 5 and 6. It must be carefully observed that in each of the forms made from bent wire the loop which takes over the stud is formed in a different plane to the plane of the arms so that the head of the stud may have space to rest in without straining the device.

The device is used for making up the tie which can then be easily adjusted in position. The forms with the long arms are suitable for collars such as stand-up or military collars where it is desirable to show a band around the collar, while those with the short arms are suitable for use with turned down collars.

What I claim and desire to secure by Letters Patent is:

1. A skeleton frame for neckties comprising a central portion having two arms hinged thereto, with means for attaching said central portion to the collar stud or button, suitable stops for limiting the upward movement of said arms, and a handle for holding said central portion substantially as described.

2. A skeleton frame for neckties comprising a central portion having two arms hinged thereto, with means consisting of a bent wire for attaching said central portion to the collar stud or button, suitable stops for limiting the upward movement of said arms, and a handle for holding said central portion substantially as described.

3. A skeleton frame for neckties comprising a central portion having two arms hinged thereto, with means consisting of a bent wire, having a loop wide at the opening and contracting inwards for the easy insertion of the stud for attaching said central portion to the collar stud or button, suitable stops for limiting the upward movement of said arms and a handle for holding said central portion substantially as described.

4. A skeleton frame for neckties comprising a central portion having two arms hinged thereto with means consisting of a bent wire having a loop wide at the opening and contracting inwards for the easy insertion of the stud, for attaching said central portion to the collar stud or button, suitable stops for limit-



ing the upward movement of said arms, and a handle for holding said central portion substantially as described.

5 5. A skeleton frame for neckties comprising a central portion having two arms hinged thereto, with means consisting of a bent wire, provided with a loop having a wide opening and contracting inwards, for attaching said central portion to the stud, suitable stops,  
10 composed of wire for limiting the upward movement of said arms, and a handle composed of bent wire for holding said central portion substantially as described.

15 6. A skeleton frame for neckties comprising a central portion having two arms hinged thereto, with means consisting of a bent wire,

provided with a loop having a wide opening and contracting inwards for attaching said central portion to the stud, suitable stops composed of wire for limiting the upward movement of said arms, said arms each provided with twists to give greater resiliency, and a handle composed of bent wire for holding said central portion substantially as described. 20

In testimony whereof, I affix my signature, 25  
in presence of two witnesses.

FREDERIC WALTHER RAUPACH.

Witnesses:

FREDK. L. RAND.

A. NUTTING.