

(No Model.)

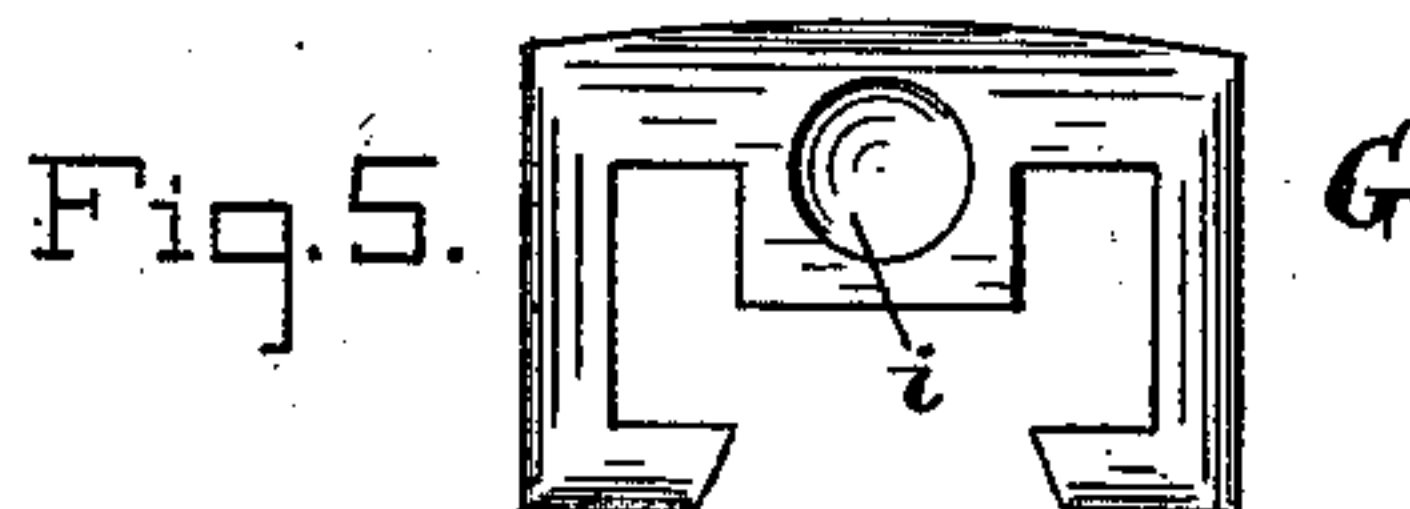
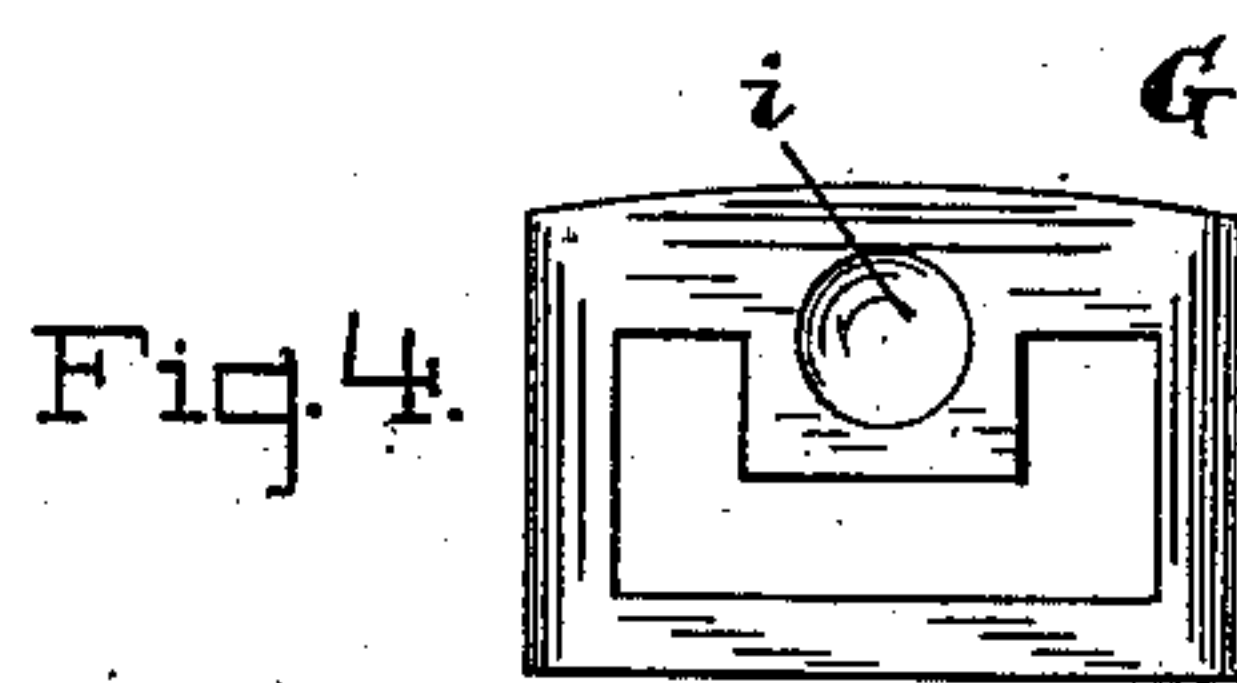
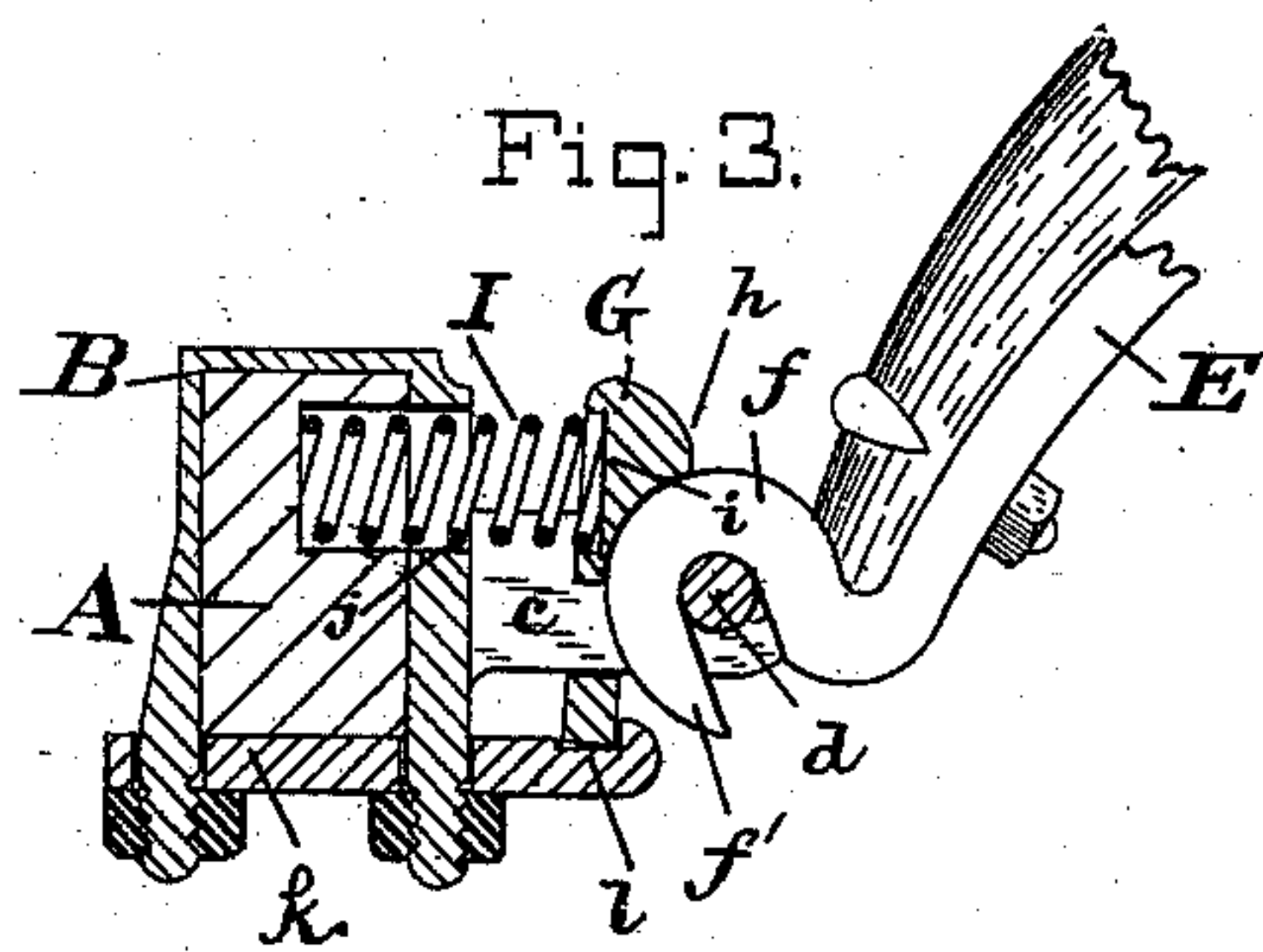
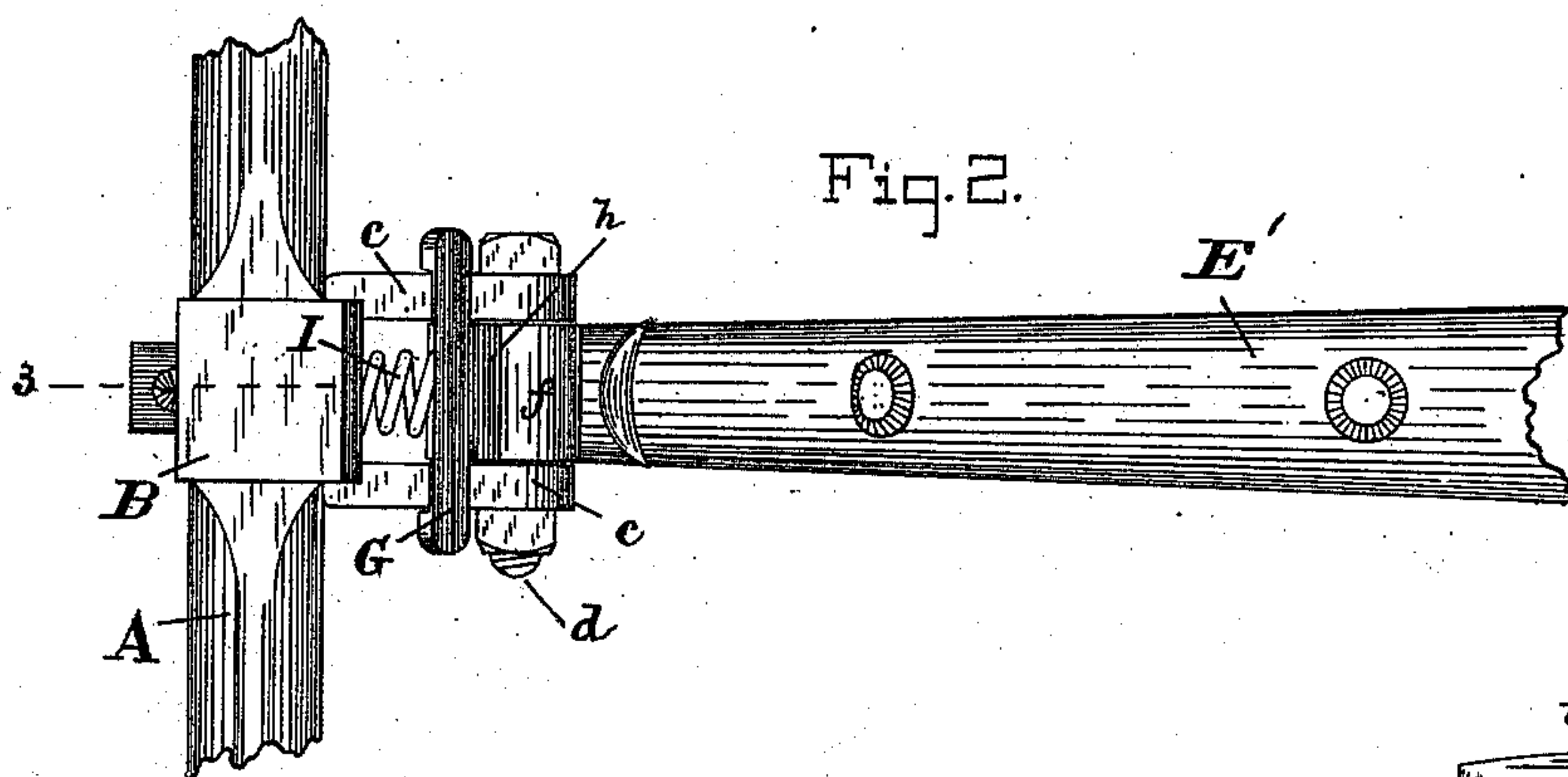
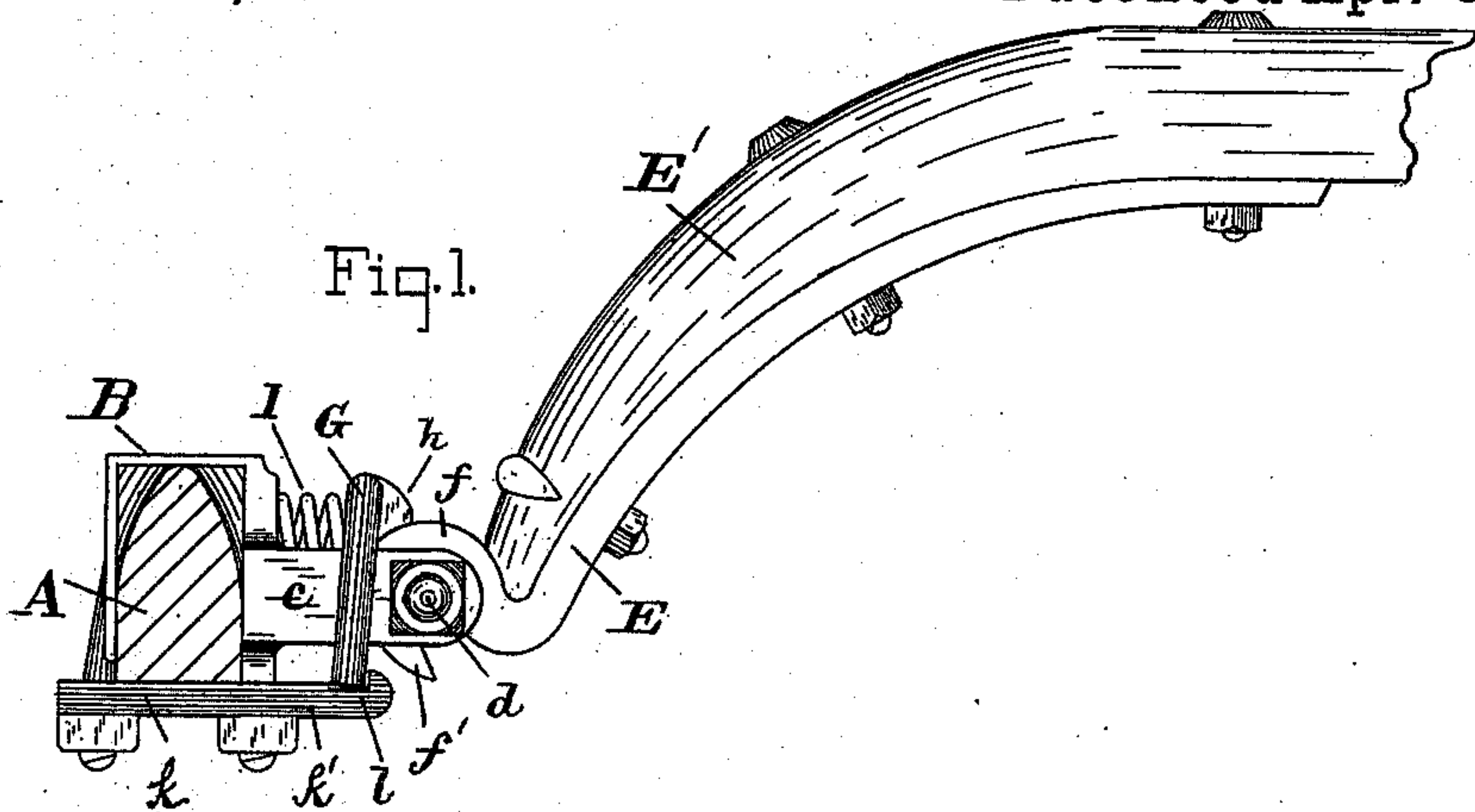
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G. H. HUTTON.

THILL COUPLING.

No. 402,527.

Patented Apr. 30, 1889.



WITNESSES:

A. Q. Balendrac.

John E. Morris.

INVENTOR:

Geo. H. Hutton

BY *Chas B. Mann*
ATTORNEY.

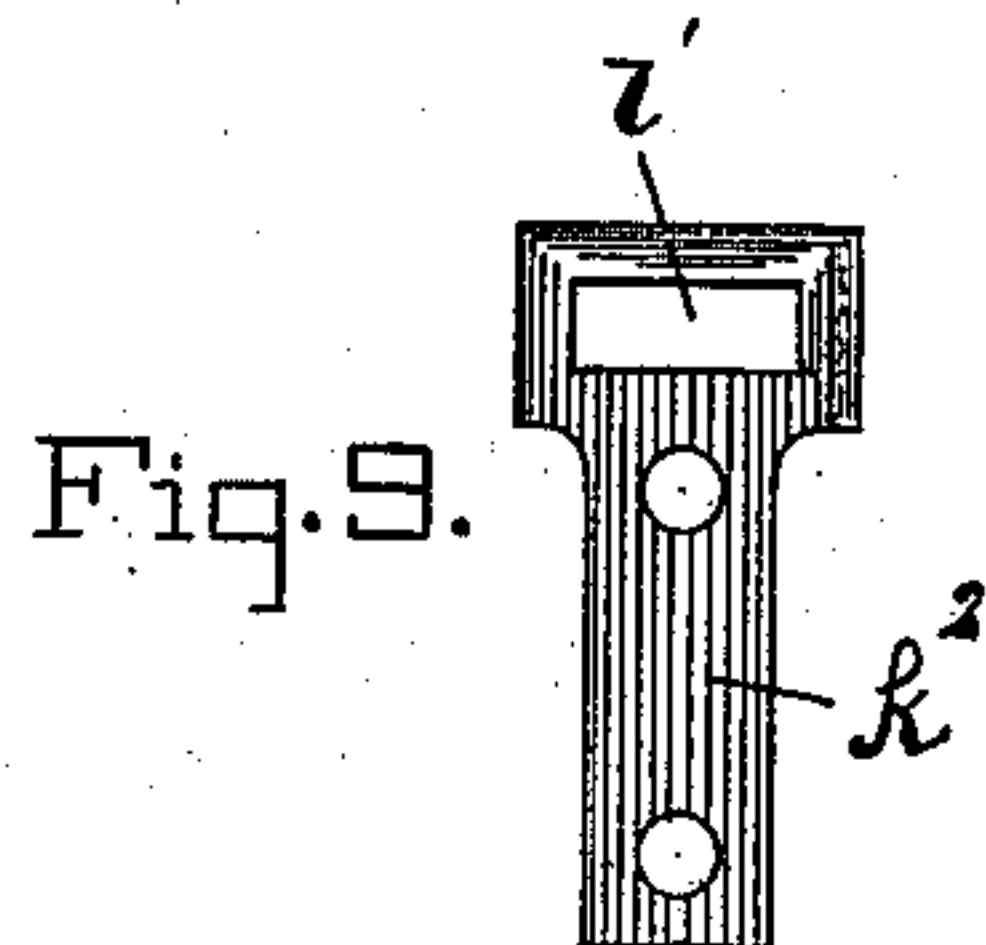
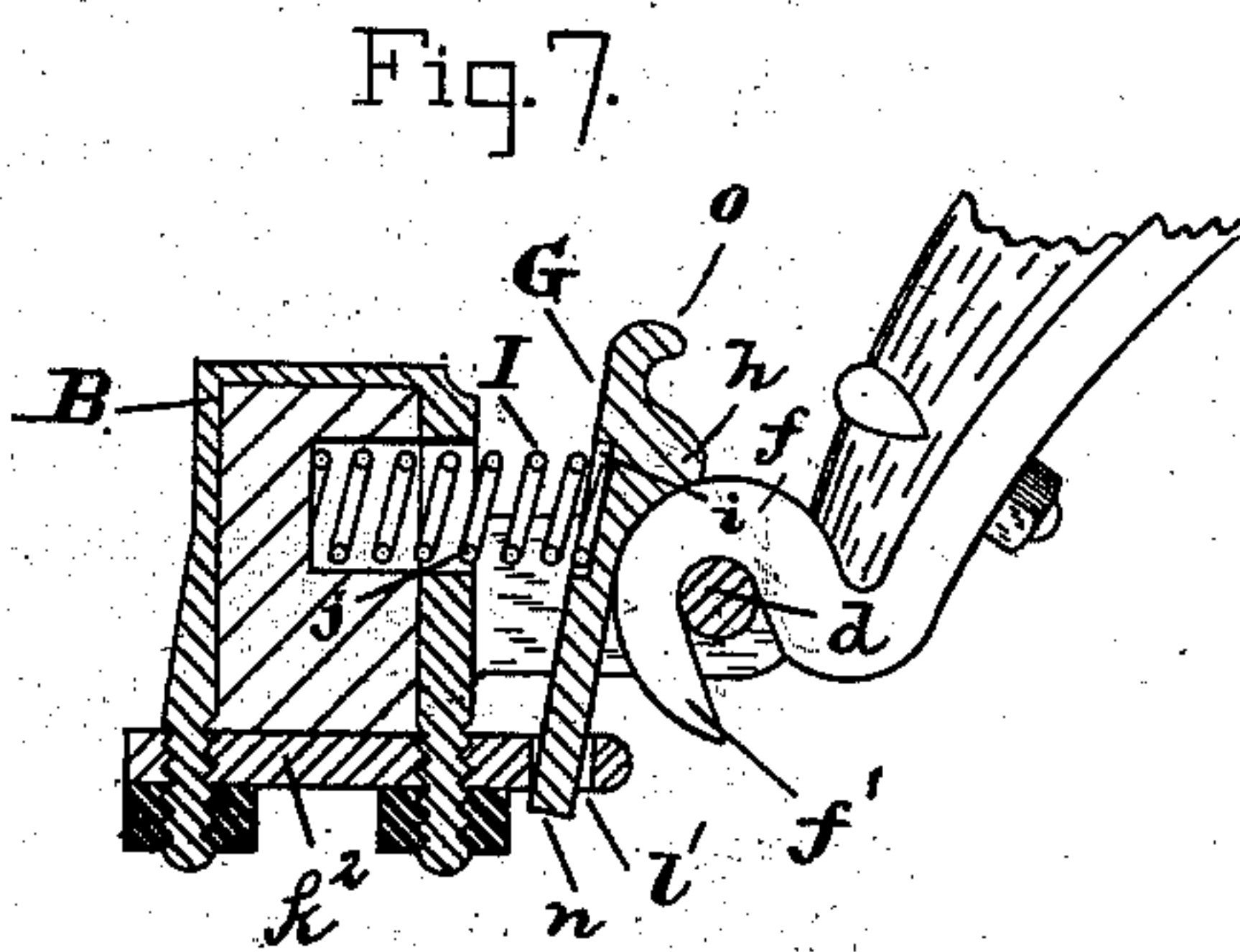
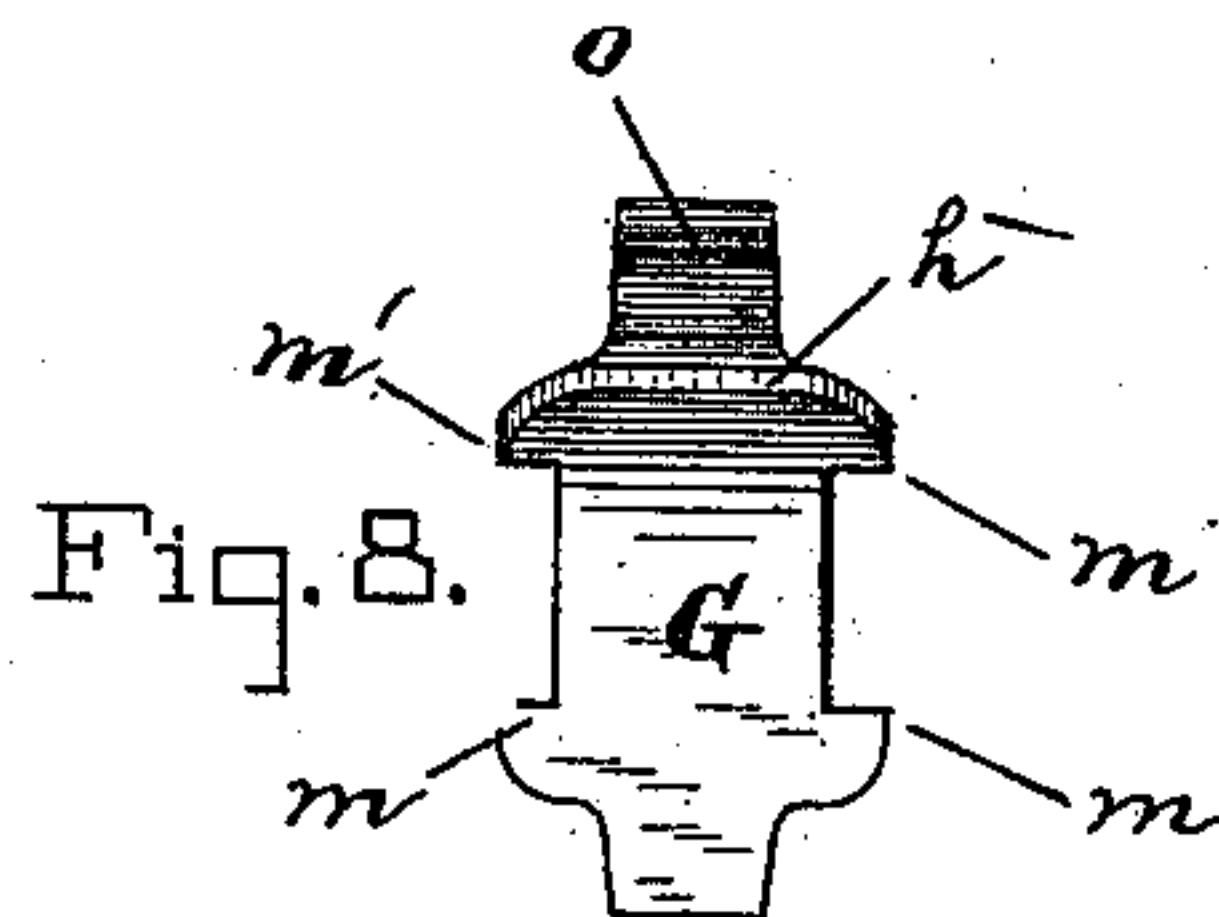
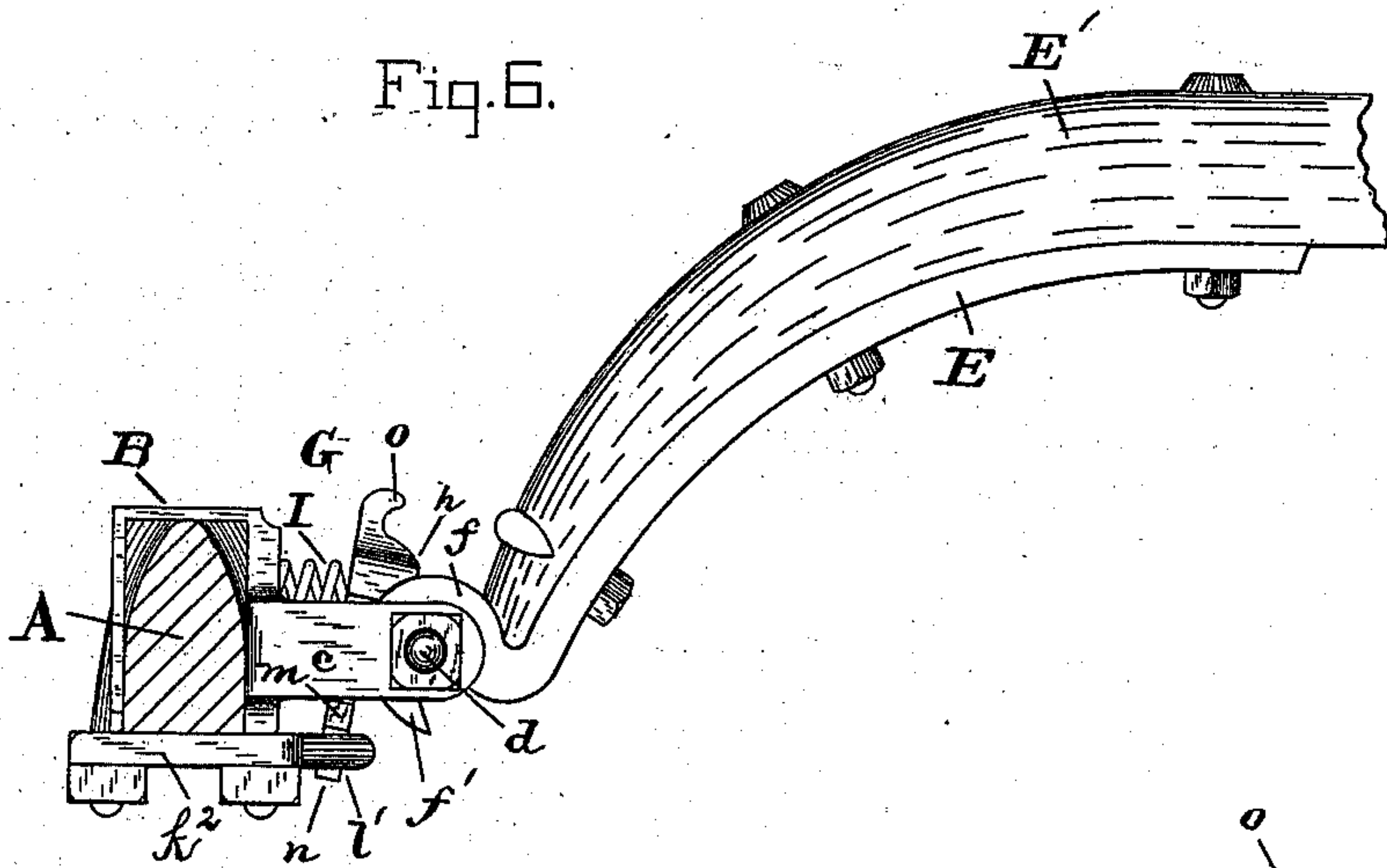
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UNITED STATES PATENT OFFICE.

GEORGE H. HUTTON, OF BALTIMORE, MARYLAND.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 402,527, dated April 30, 1889.

Application filed March 5, 1889. Serial No. 301,899. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. HUTTON, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Thill-Couplings, of which the following is a specification.

This invention relates to a coupling for uniting shafts or pole to the front axle of a vehicle.

The accompanying drawings illustrate the invention.

Figure 1 is a side view of the parts, the axle being in section. Fig. 2 is a top view of the same parts. Fig. 3 is a section view of the thill-coupling, taken on the line 3 3. Fig. 4 is a back view of the hook presser-plate. Fig. 5 shows a modification of the presser-plate. Figs. 6 and 7 are side and section views showing a modification of the presser-plate. Fig. 8 is a front view of the modified form of presser-plate. Fig. 9 is a view of the modified form of yoke-plate for the clip.

The letter A designates the axle of a vehicle; B, the usual clip which surrounds the axle and to which part of the coupling is attached. This clip has the two customary ears, *c*, and an ordinary bolt, *d*, across from one ear to the other serves for the attachment of the shaft-iron E.

The special construction which constitutes my invention will now be described.

The shaft E' has the usual iron, E, provided at its end with a hook, *f*, whose point *f'* projects downward. This hook couples with the bolt *d*. To couple or uncouple the shaft E does not require the removal of the bolt. The hook *f* is so shaped that when the forward end of the shaft E' is raised, as in Fig. 1, to the usual position it has when an animal is hitched to it, the point *f'*, which projects downward, will also incline forward below the bolt *d*. In order to couple or uncouple the shaft-hook *f* from the bolt, the forward end of the shaft must be lowered and allowed to rest on the ground. Thereby the hook-point *f'* will project straight downward. It will then simply be necessary, while the forward end of the shaft is on the ground, to lower or raise the hook end of the shaft, first forcing the presser-plate G back from the hook.

A presser-plate G is loosely attached to the two ears *c*. In Figs. 1 to 5 this plate is shown as taking around the exterior of the ears. The presser-plate has at its front side and top a beak or boss, *h*, which bears against and over the hook *f*. A spring, I, presses forward the plate G and keeps it hard against the hook, and thereby prevents the latter uncoupling from the bolt *d*. The back of the plate G has a socket, *i*, and the front of the axle-clip B also has a socket, *j*, and the spiral spring I has its ends resting in these two sockets. The yoke-plate *k* below the axle, which unites the two ends of the clip B, has one end, *k'*, projecting forward, and is provided on top with a grip-notch, *l*, which receives the lower part of the presser-plate G and coacts with the spring I in keeping the beak or boss *h* hard against the hook.

In the modification shown in Fig. 5 the lower part of the plate G is not designed to be gripped by the grip-notch *l*.

In Figs. 6, 7, and 8 the presser-plate is shown as seated between the two ears *c* and loosely attached thereto by the lateral lugs *m m'*, two of which take below the said ears and two above. It will be seen that this construction of presser-plate operates substantially like that shown in Figs. 4 and 5.

The yoke-plate *k*, to co-operate with the form of presser-plate shown in Fig. 8, is provided at its forward-projecting end with a slot, *l'*, which receives the lower end, *n*, of the presser-plate. The presser-plate may have at its top a hook-lug, *o*, which will afford means for engaging a suitable lever when it is desired to force the said plate back from the hook.

This coupling may be used with shafts or poles of vehicles.

Having described my invention, I claim—

1. In a thill or pole coupling, the combination of the clip having two ears, *c*, a bolt, *d*, the iron provided with a downward-projecting hook, *f*, a presser-plate, G, loosely attached to the clip-ears and having a beak or boss, *h*, which bears against the said hook, and a spring, I, between the clip and presser-plate.

2. In a thill or pole coupling, the combination of the clip having two ears, *c*, a bolt, *d*, the iron provided with a downward-projecting

hook, *f*, a presser-plate, *G*, loosely attached to the clip-ears and having a beak or boss, *h*, which bears against the said hook, a yoke-plate uniting the two ends of the clip and having one end projected forward and holding the lower part of the presser-plate, and a spring between the clip and presser-plate.

3. In a thill or pole coupling, the combination of the clip having two ears, *c*, and a socket in the front part, a bolt, *d*, the iron provided with a downward-projecting hook, *f*, a presser-

plate, *G*, loosely attached to the clip-ears and having in its back a socket, *i*, and a spiral spring having one end in the clip-socket and the other end in the plate-socket.

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

GEO. H. HUTTON.

Witnesses:

JOHN E. MORRIS,

JNO. T. MADDOX.