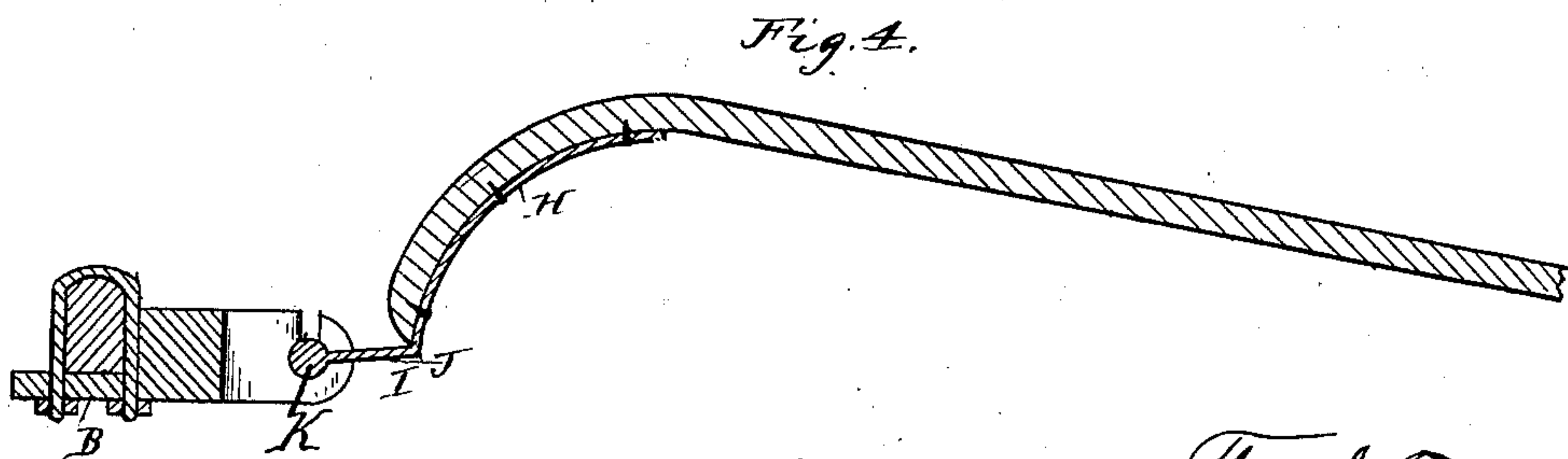
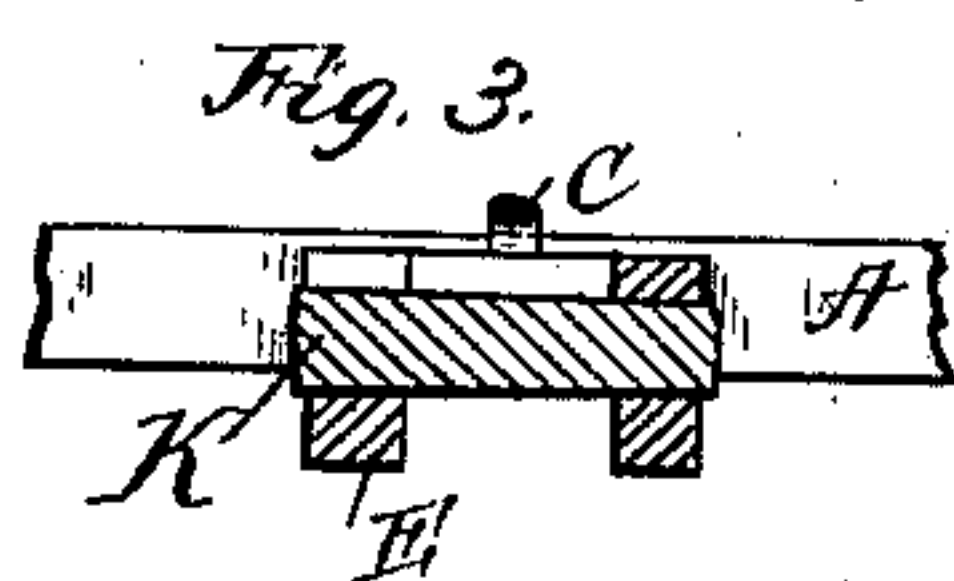
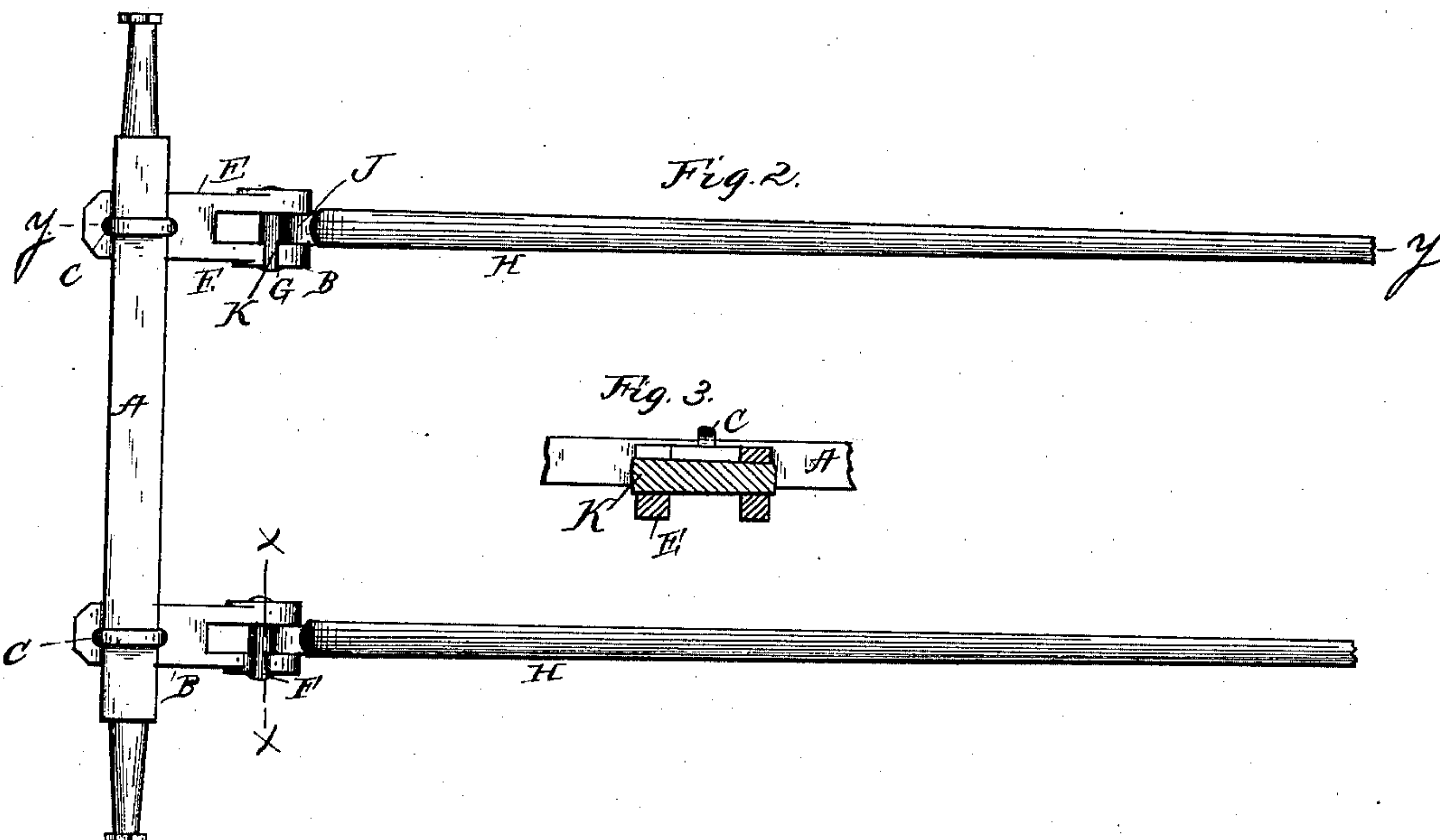
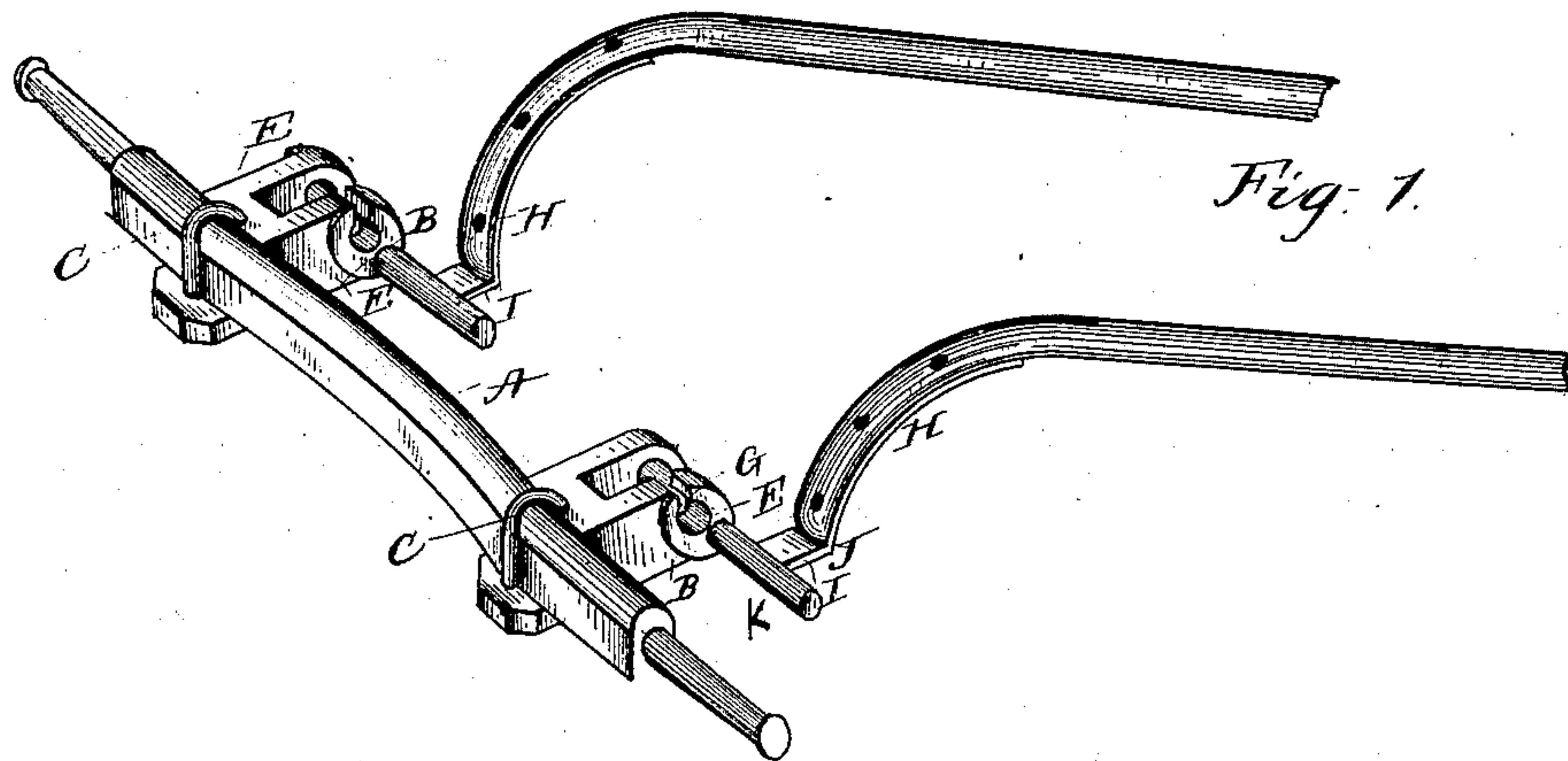


(No Model.)

T. A. MAYES.  
THILL COUPLING.

No. 305,095.

Patented Sept. 16, 1884.



WITNESSES  
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Attorneys



# UNITED STATES PATENT OFFICE.

THOMAS A. MAYES, OF PHILLIPSBURG, PENNSYLVANIA.

## THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 305,095, dated September 16, 1884.

Application filed May 24, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. MAYES, a citizen of the United States, residing at Phillipsburg, in the county of Centre and State of Pennsylvania, have invented a new and useful Thill-Coupling, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to thill-couplings; and it has for its object to provide a device of this character which will be simple in construction, inexpensive to manufacture, convenient to adjust, and durable and efficient in use.

With these and other objects in view the said invention consists in certain details of construction and combination of parts, as hereinafter set forth, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view showing my improved thill-coupling connecting the shafts to the front axle, the parts being separated and the shafts being shown in the position assumed when inserting the thill-iron in the draw-bar. Fig. 2 is a plan view showing the parts connected together for use. Fig. 3 is a transverse section on the line *x x*, Fig. 2. Fig. 4 is a longitudinal section on the line *y y*, Fig. 2.

Like letters refer to corresponding parts in the several figures.

Referring to the drawings, A designates the front axle; and B B the draw bars or irons recessed, as shown, to receive the axle, clips C C, connecting the draw-irons and axle together. Said draw bars or irons are slotted, to form outwardly-extending arms E E, each of which is provided with a transverse perforation, F, the outer arm E of one draw-iron and the inner arm E of the other draw-iron being slotted at G, said slot communicating with the perforation F, for the purpose hereinafter set forth. The arms E E are formed larger at their outer ends around the perforations F, to enable the same to withstand the strains incidental to constant use.

To the shafts H H are attached the thill-irons I I, formed at one end with an angular bend, J, to the outer ends or extremity of which are secured the transverse pins K K, tapered from end to end, as shown, said pins

being adapted to enter the perforations F in the draw-irons.

The operation of my invention will be readily understood from the foregoing description, taken in connection with the annexed drawings.

In adjusting the shafts, the latter are raised into the position shown in Fig. 1, until the transverse pins K of the thill-iron register with the perforations F in the arms E E of the draw-bars, when the pins are pushed slightly inward through the perforations in one of each pair of the arms. The shafts are swung up farther, so as to cause the bend J to coincide with the slot G in this arm, the pins then being permitted to pass farther inward through the perforations in the other arm of the same pairs, the shafts dropping down into correct position.

It will be seen that when the shafts are in the correct position one end of the pin K rests within the perforation in the arm E, while the other end rests within the perforation in the other arm E, so that the draft of the vehicle comes upon the front ends of the arms, which, being strengthened, as hereinbefore stated, will be enabled to withstand the strain.

It will also be seen that the slot separating the arms E E enables the shafts to be moved up and down, while the angular bend J on the ends of the thill-irons serves to suspend the shafts above the coupling, said bend working within the slot.

It will also be apparent that the tapered construction of the pins allows the same to more securely fit the perforations in the arms of the draw-irons.

When it is desired to separate the shafts from the axle, the shafts are raised into an upright position, until the bend in the thill-iron coincides with the slot G in the arms, when the shafts may be slipped outward from the coupling.

By reason of the construction herein shown and described there will be no danger of the coupling becoming separated while in use, since the thill-irons will not be withdrawn from the draw-irons except in the manner hereinbefore described.

It will be seen that I do not employ bolts or



nuts to hold the coupling together, and thus there will be no such trouble and expense as occur from the use of such means.

5 I am aware that many of the features of my thill-coupling are not new, and therefore would have it understood that I do not claim any broad construction, but limit myself to the novel combination set forth, whereby the construction is simplified, strengthened, and made  
10 more convenient in every respect.

My improved coupling is simple in construction, convenient to adjust in position, inexpensive to manufacture, and durable and efficient in use.

15 Having described my invention, I claim as new and desire to secure by Letters Patent of the United States—

As an improvement in thill-couplings, the combination of the draw bar or iron, recessed  
20 at the rear ends to receive the axle and clips connecting the parts together, said draw bar

or irons being slotted at their outer ends to form arms E E, constructed larger at their outer ends for strengthening purposes, transverse perforations F F, formed in said arms, 25 and slots G, provided in the upper ends of one of the arms and communicating with the perforation therein, with the shafts having the thill-irons I, secured to the under side of the same, and formed with flat angular bends J, 30 extending around the ends of the shafts and having transverse pins K, secured across the ends of said bends and tapered from end to end, said pins projecting beyond the bend on each side, as set forth. 35

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

THOMAS A. MAYES.

Witnesses:

E. G. SIGGERS,

THEODORE MUNGEN.