

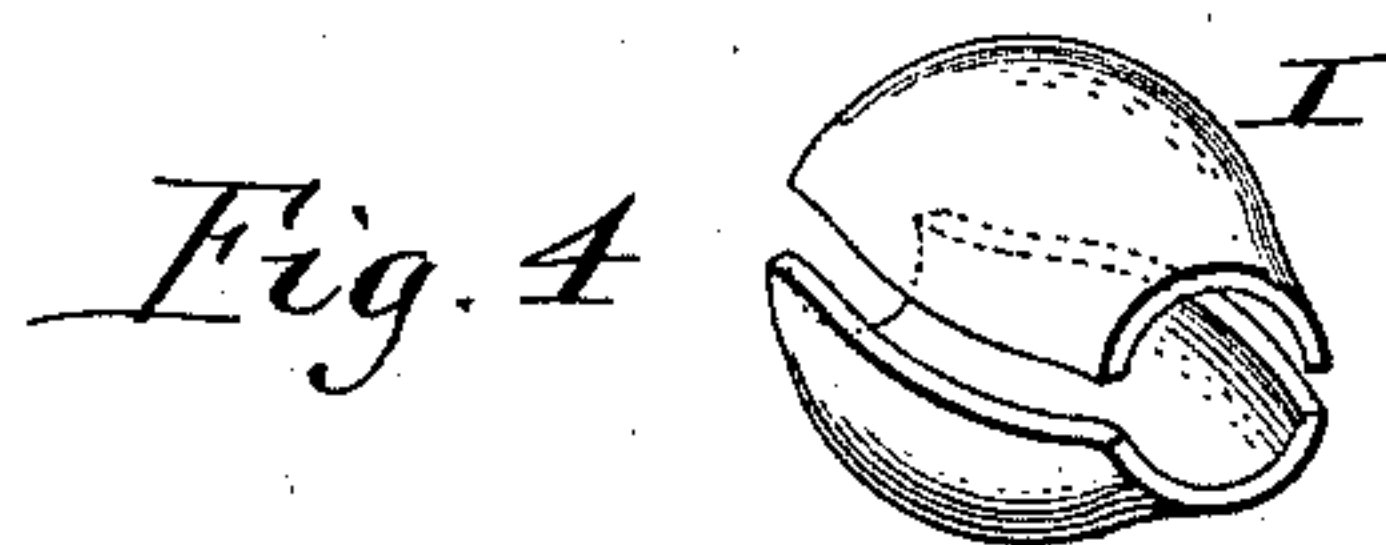
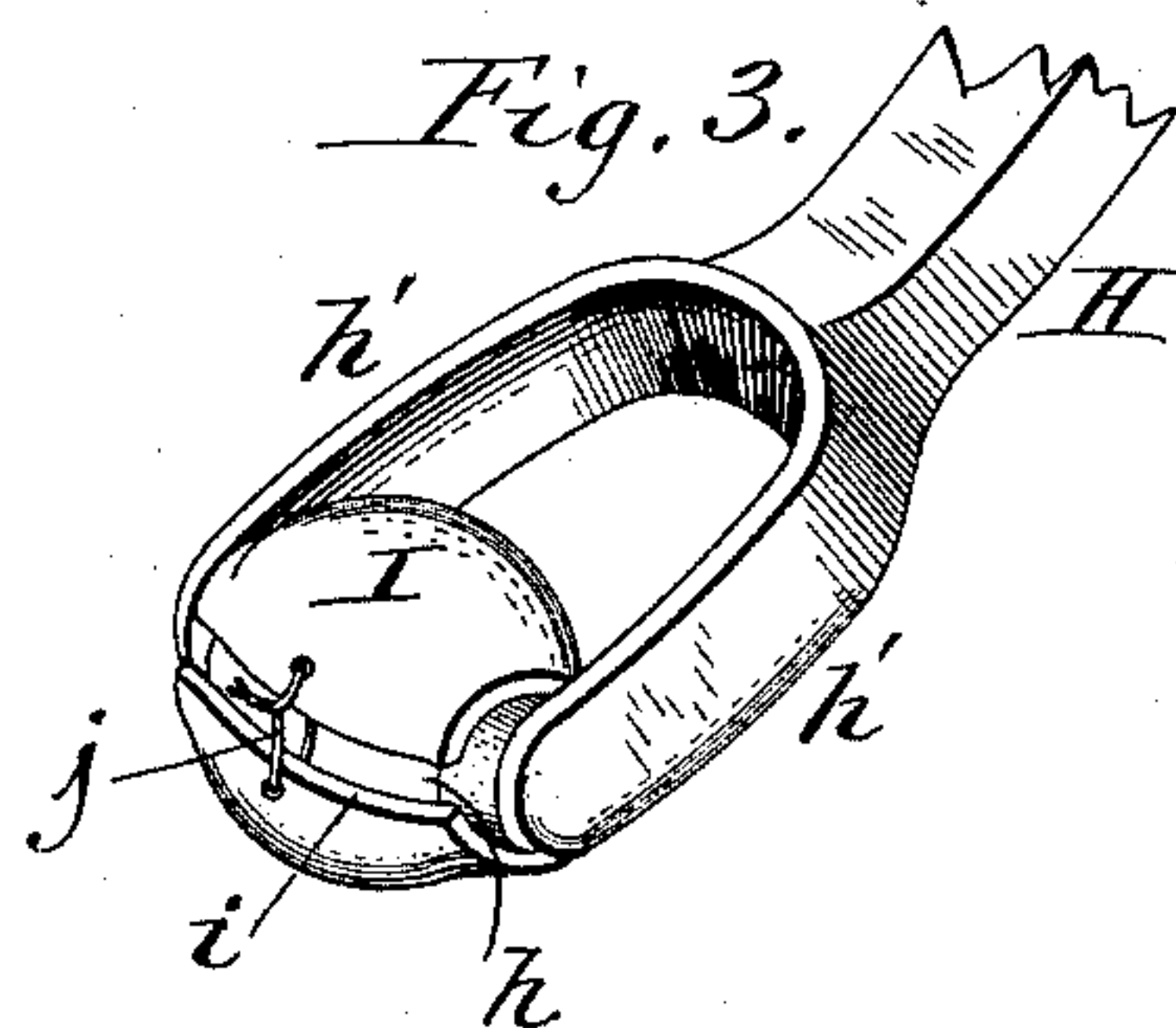
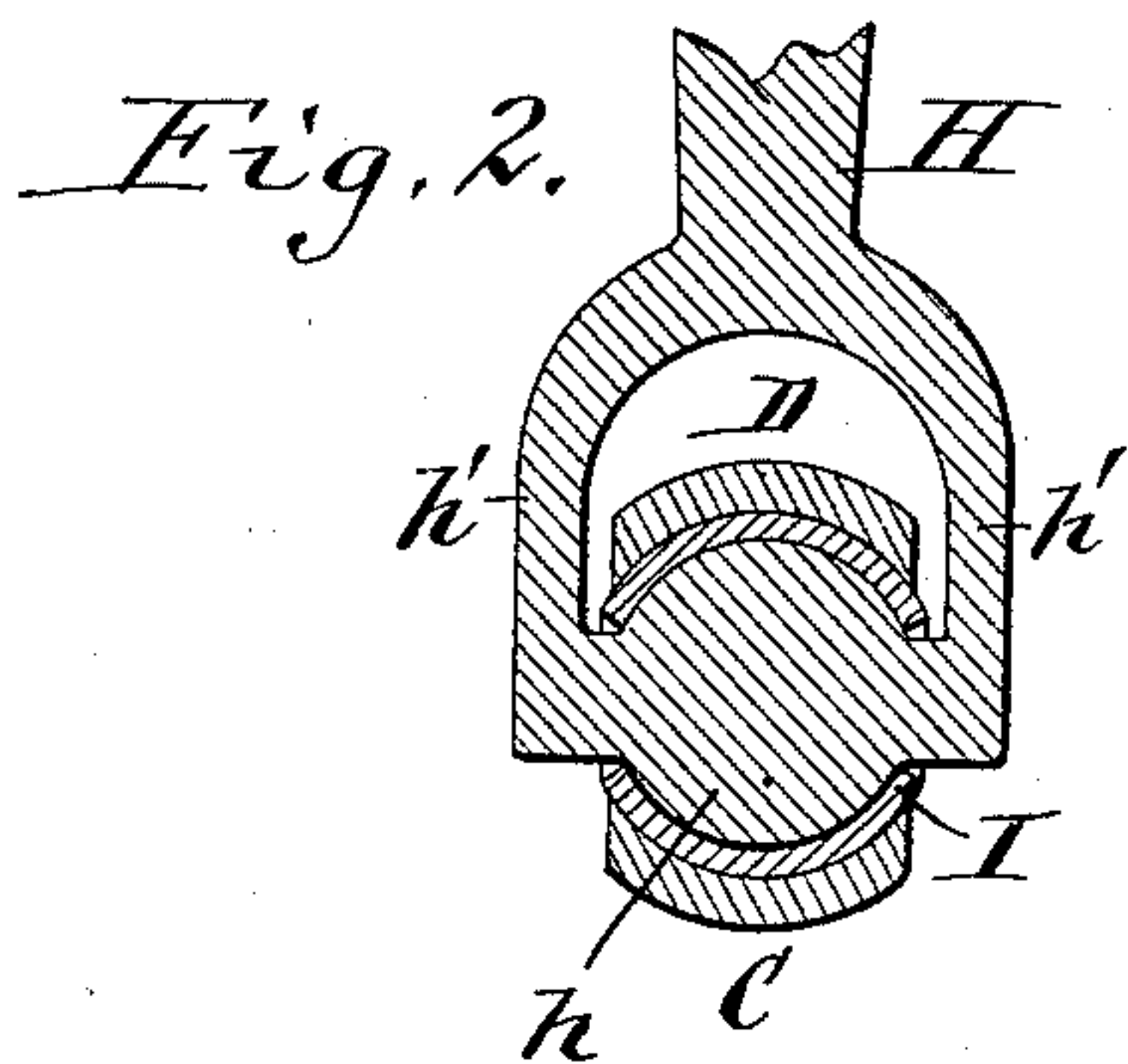
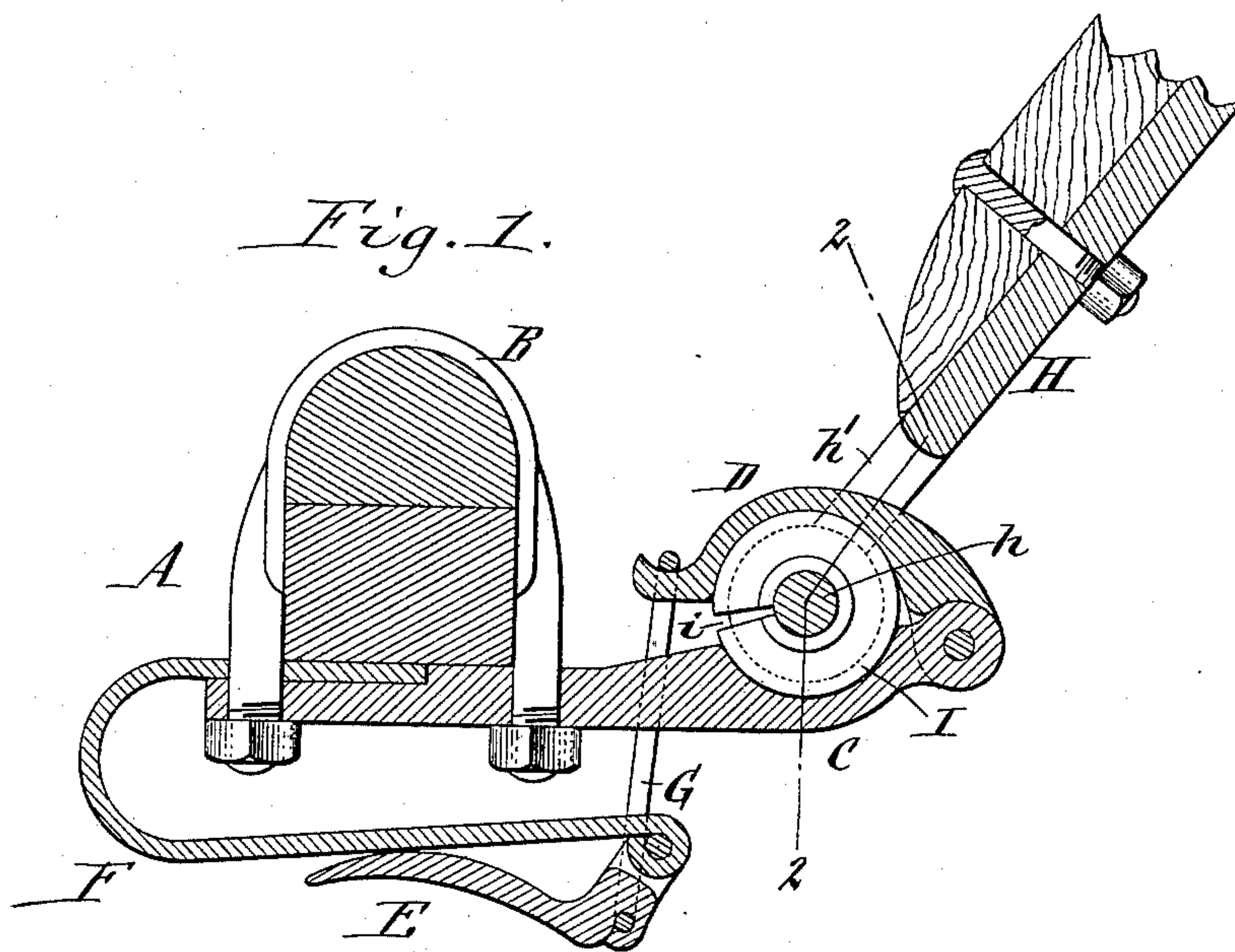
No. 609,928.

Patented Aug. 30, 1898.

C. C. BRADLEY.
THILL COUPLING.

(Application filed Sept. 28, 1897.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

CHRISTOPHER COLUMBUS BRADLEY, OF SYRACUSE, NEW YORK.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 609,928, dated August 30, 1898.

Application filed September 28, 1897. Serial No. 653,330. (No model.)

To all whom it may concern:

Be it known that I, CHRISTOPHER COLUMBUS BRADLEY, a citizen of the United States, residing at Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in Thill-Couplings, of which the following is a specification.

This invention relates to that class of thill-couplings which comprise a divided draft-eye on the vehicle and a spherical wrist or knuckle on the thill or pole iron, which is adapted to be seated in the draft-eye.

The object of my invention is to provide the coupling with a packing which effectually prevents rattling and which is very durable.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of a thill-coupling provided with my improvement. Fig. 2 is a vertical cross-section on line 2 2, Fig. 1. Fig. 3 is a perspective view of the wrist of the thill-iron with the improved packing applied thereto. Fig. 4 is a perspective view of a modified construction of the packing.

Like letters of reference refer to like parts in the several figures.

A represents the front axle of a vehicle, and B the clip whereby the thill-coupling is secured to the axle. The coupling represented in the drawings is of well-known construction and comprises a lower fixed jaw C, which is secured to the under side of the axle and projects forwardly therefrom, a movable upper jaw D, which is hinged to the front end of the fixed jaw, a clamping-lever E, which is arranged underneath the fixed jaw and pivoted to the end of a bent tension-spring F, and a bail or loop G, which connects the lever with the movable jaw. The fixed and movable jaws constitute the draft-eye.

H represents the thill or pole iron, and *h* the wrist or knuckle of the same. The latter is spherical in form and arranged, preferably, between two side bars *h'* of the thill-iron.

I represents a spherical packing which surrounds the wrist *h* and is seated in corresponding cavities of the jaws of the draft-eye. This packing is made of a flat piece of hard oak leather and bent and molded by pressure to the required spherical form, with the open joint *i* extending along one side,

so that this split packing will retain its shape, but can be sprung over the wrist. The packing is constructed with truncated ends, which are arranged at right angles to the open joint at the ends thereof and whereby the packing straddles the wrist of the thill-iron, while it entirely envelops the spherical knuckle and separates the same from the metallic surface of the surrounding spherical socket. The packing is preferably saturated with tallow. The packing being seated in the spherical recesses of the jaws of the draft-eye, it is firmly clamped therein, and as the pressure of the jaws falls with greatest force upon the outer side of the packing, which is much larger in area and diameter than the inner side, the packing is rigidly held in the draft-eye and is prevented from turning in the same while the wrist turns in the packing. In other words, the friction between the outer side of the spherical packing and the draft-eye is far greater than that between the inner side of the packing and the wrist, and the consequence is that the wrist turns in the packing, while the latter is held stationary in the draft-eye. The inner surface of the packing wears very smooth and forms a very perfect bearing for the wrist to work in. By contriving the packing in this manner the rattling of the thill-coupling is not only prevented, but the twisting or wringing of the packing in the draft-eye, which is so common and destructive in cylindrical packings, is entirely avoided and the life of the packing greatly lengthened.

The thill-coupling shown takes up the wear automatically, which is, however, very slight; but the special devices shown for that purpose may be modified in many ways so far as the present improvement is concerned.

The longitudinal edges of the packing are preferably tied together by a fine wire *j* after the packing has been applied to the wrist, in order to prevent the packing from becoming detached from the wrist when removed from the draft-eye.

While I prefer to make the packing of leather, it may also be made of other suitable material, and, if desired, the packing may be composed of separate halves, as shown in Fig. 4, instead of being made in one piece.

I claim as my invention—

The combination with a draft-eye having spherical recesses in its jaws and a draft-iron having a spherical knuckle, of an interposed spherical packing provided with an open longitudinal joint along its side and with truncated ends at the ends of said joint, said packing enveloping the knuckle entirely and separating the same from the spherical bear-

ing-surfaces of the surrounding draft-eye, substantially as set forth. 10

Witness my hand this 21st day of September, 1897.

CHRISTOPHER COLUMBUS BRADLEY.

Witnesses:

CALVIN S. BUNNELL,
F. L. SCHARFF.