

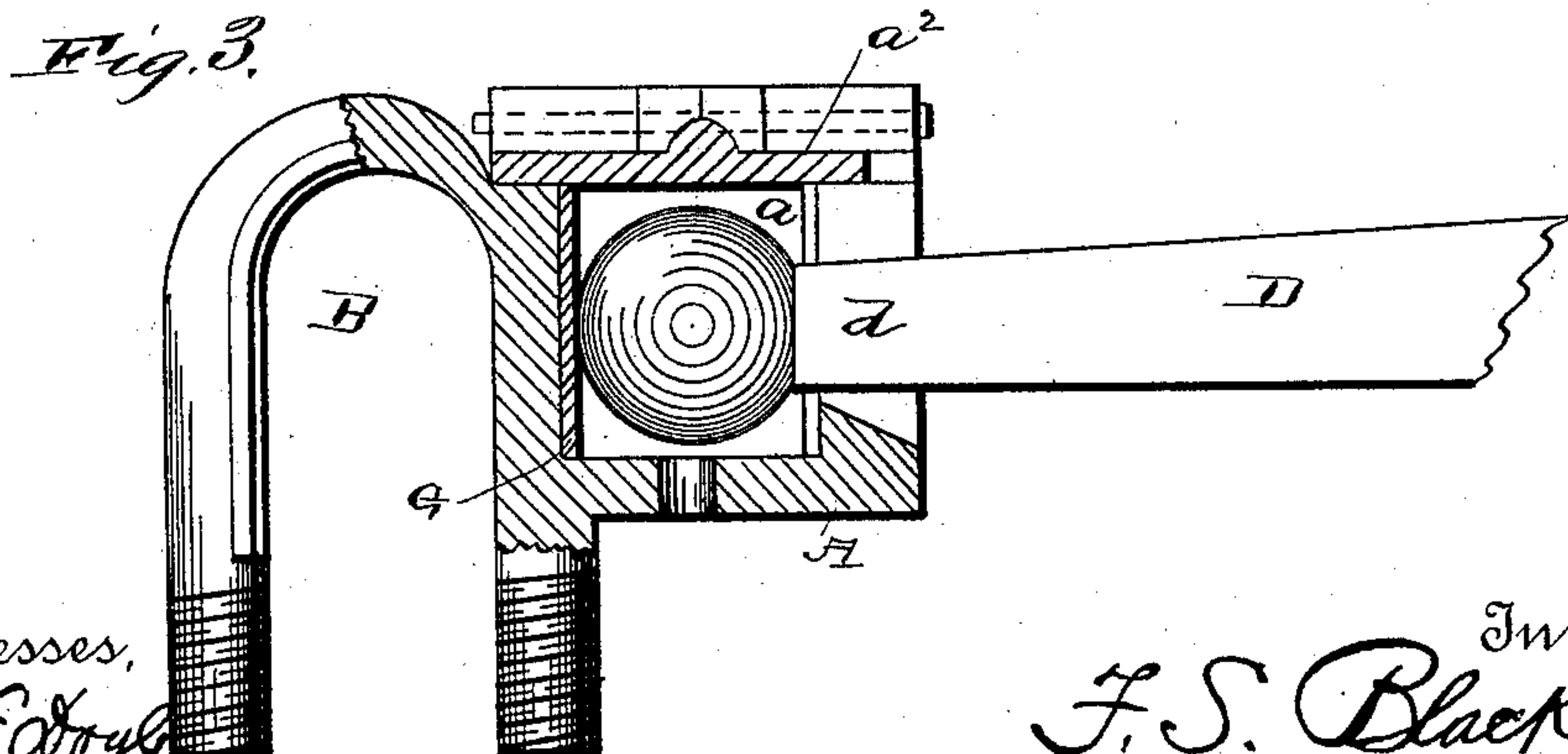
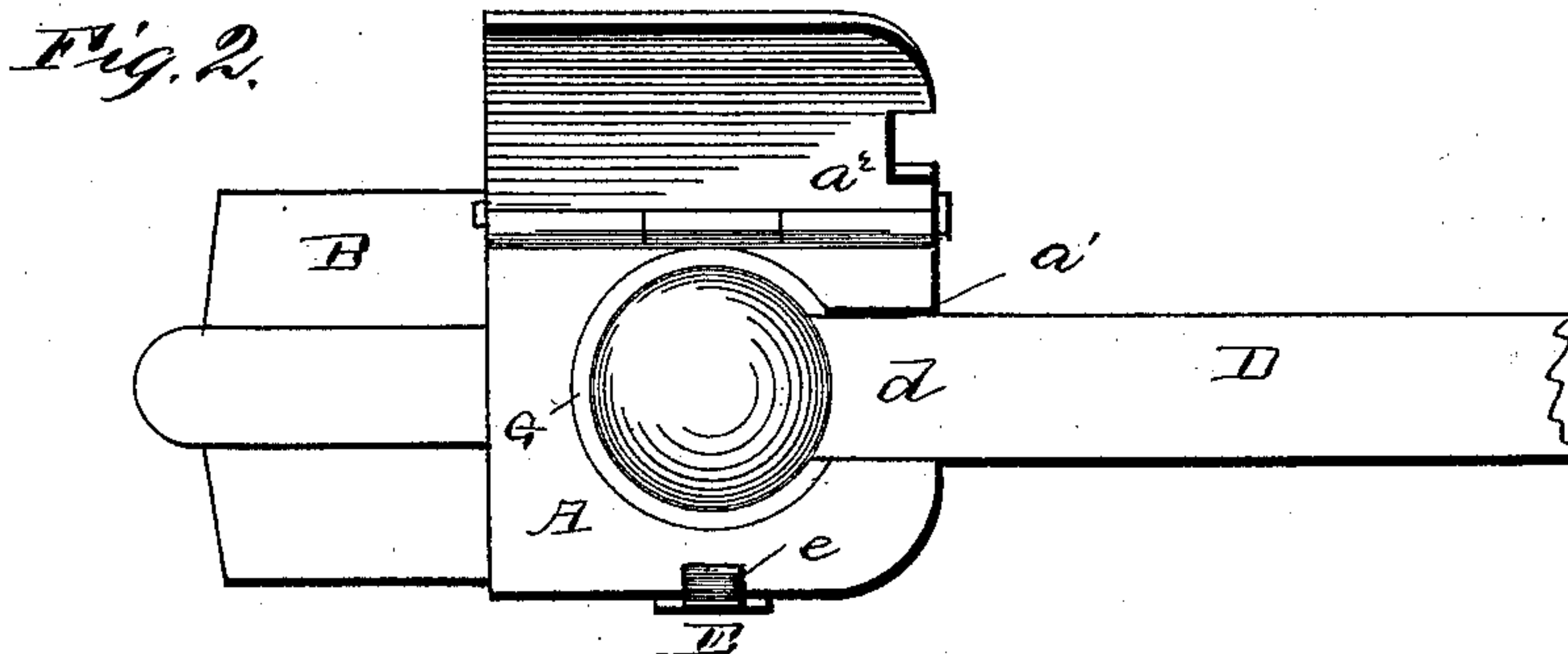
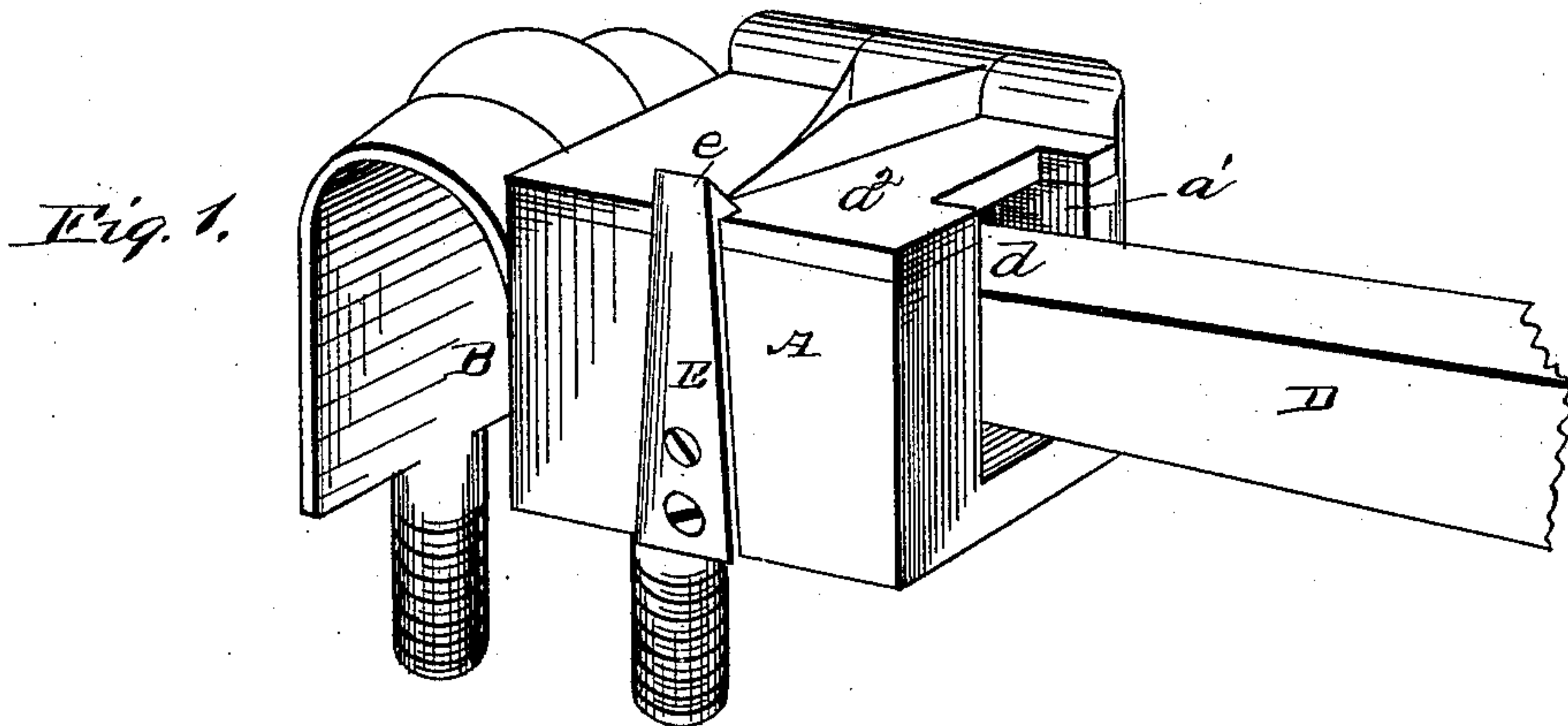
(No Model.)

F. S. BLACKMAN.

THILL COUPLING.

No. 387,620.

Patented Aug. 14, 1888.



Witnesses,

C. E. Doyle

J. F. Riley

Inventor,

F. S. Blackman,

by C. Snow & Co. Attorneys.

UNITED STATES PATENT OFFICE.

FRED. S. BLACKMAN, OF PORT ALLEGHANY, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO G. L. BLACKMAN, OF SAME PLACE.

THILL-COUPLING.

SPECIFICATION forming part of Letters Patent No. 387,620, dated August 14, 1888.

Application filed March 13, 1888. Serial No. 267,079. (No model.)

To all whom it may concern:

Be it known that I, FRED. S. BLACKMAN, a citizen of the United States, residing at Port Alleghany, in the county of McKean and State of Pennsylvania, have invented a new and useful improvement in Thill-Couplings and Anti-Rattlers, of which the following is a specification.

The invention relates to thill-couplings and anti-rattlers.

The object of the invention is the production of a thill-coupling and anti-rattler of simple and economic construction that will possess great durability and strength and afford a perfectly secure attachment for the shafts or thills. Furthermore, the invention has for its object the production of a device in which the operation of coupling and uncoupling may be performed with great rapidity and certainty.

The invention consists in the novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the accompanying drawings, forming part of this specification, and in which like letters of reference designate corresponding parts, Figure 1 is a perspective view of the improved thill-coupling and anti-rattler, illustrating the clip, the box, and the shaft-iron. Fig. 2 is a plan view of the coupling, the hinged top being open and the cylindrical cavity that forms a socket for the reception of the end of the shaft-iron exposed. Fig. 3 is a vertical longitudinal sectional view of the coupling.

In the accompanying drawings, A designates the box, made of any desired material and suitably secured to the axle-clip B, for fastening the device to an axle. The box A may be secured by any preferred means to the clip B, or it may be made integral therewith, as I have illustrated in the accompanying drawings, and in which manner I generally prefer the device to be constructed. The interior of the box A is constructed to form a cylindrical cavity, a , and it is designed for the reception of the end d of the shaft-iron D. The box A has in its front face an opening, a' , which communicates with the cylindrical cavity a , in which the neck of the shaft-iron works, when the shafts or thills are coupled to an axle.

The top a^2 of the box A is hinged, and

when it is desired to couple the shafts or thills to the axle the hinged top a^2 is swung open to allow the insertion of the shaft-iron D. The hinged top is then closed, and it is retained in that position by a spring-catch, E, having a head, e , which engages the hinged top a^2 and securely holds it in its closed position until released from such engagement. The spring-catch E is secured to the side of the box A in any desired manner, such as by pivots, screws, or the like.

The shaft-iron D, which is fastened to the shafts or thills, has its outer end terminating in a ball that snugly fits into the cylindrical cavity a , which, acting in the capacity of a socket, forms with the shaft-iron a ball-and-socket joint. In order to increase the ease of movement and to render such motion noiseless, a lining or covering of leather or other suitable material, G, is placed around the walls of the cylindrical cavity a . This lining or covering G completely deadens the sound and renders the device a perfect anti-rattler. The box is provided with a suitable hole or opening to facilitate the lubrication of the parts when it becomes necessary.

When it is desired to perform the operation of coupling the shafts or thills to the axle, the hinged top a^2 of the box A is swung open and the end of the shaft-iron D is inserted into the cylindrical cavity a . The hinged top a^2 is then closed and brought into engagement with the spring-catch E, which securely holds it, the ball or head of the shaft-iron D being in the cylindrical cavity a and the neck of the shaft-iron being allowed limited vertical play in the opening a' in the front face of the box A.

To uncouple the shafts or thills, it is only necessary to release the hinged top a^2 from engagement with the spring-catch E and swing it open, and the end of the shaft-iron may be lifted from the box A.

From the foregoing it will clearly be seen that a device of the described construction will permit the operation of coupling and uncoupling to be performed with great rapidity and ease, and is strong, durable, and comparatively inexpensive.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A thill-coupling and anti-rattler consist-

ing of a box having its interior formed into a cylindrical cavity and an opening in its front face communicating with the cylindrical cavity and provided with a hinged top, a shaft-iron having its end terminating in a ball, and a clip adapted to secure the box to an axle, substantially as described.

2. A thill-coupling and anti-rattler consisting of a box having an interiorly-arranged cylindrical cavity and an opening communicating with the cylindrical cavity and provided with a hinged top, a spring-catch secured to the side of the box and adapted to engage the hinged top, a shaft-iron terminating in a ball, and a clip capable of securing the device to an axle, substantially as set forth.

3. A thill-coupling and anti-rattler consisting of a box having formed integral therewith a clip capable of securing it to an axle and provided with a cylindrical cavity and an opening communicating therewith, and also

provided with a hinged top, a spring-catch adapted to engage the hinged top, and a shaft-iron, substantially as and for the purpose set forth.

4. A thill-coupling and anti-rattler consisting of a box having formed integral therewith a clip and provided with a hinged top and a cylindrical cavity and an opening communicating with the cavity, said cylindrical cavity being lined with some suitable sound-deadening substance, a spring adapted to engage the hinged top, and a shaft-iron having its end terminating in a ball, substantially as set forth.

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

FRED. S. BLACKMAN.

Witnesses:

RAY FOOTE,

J. D. SWALLOW.