

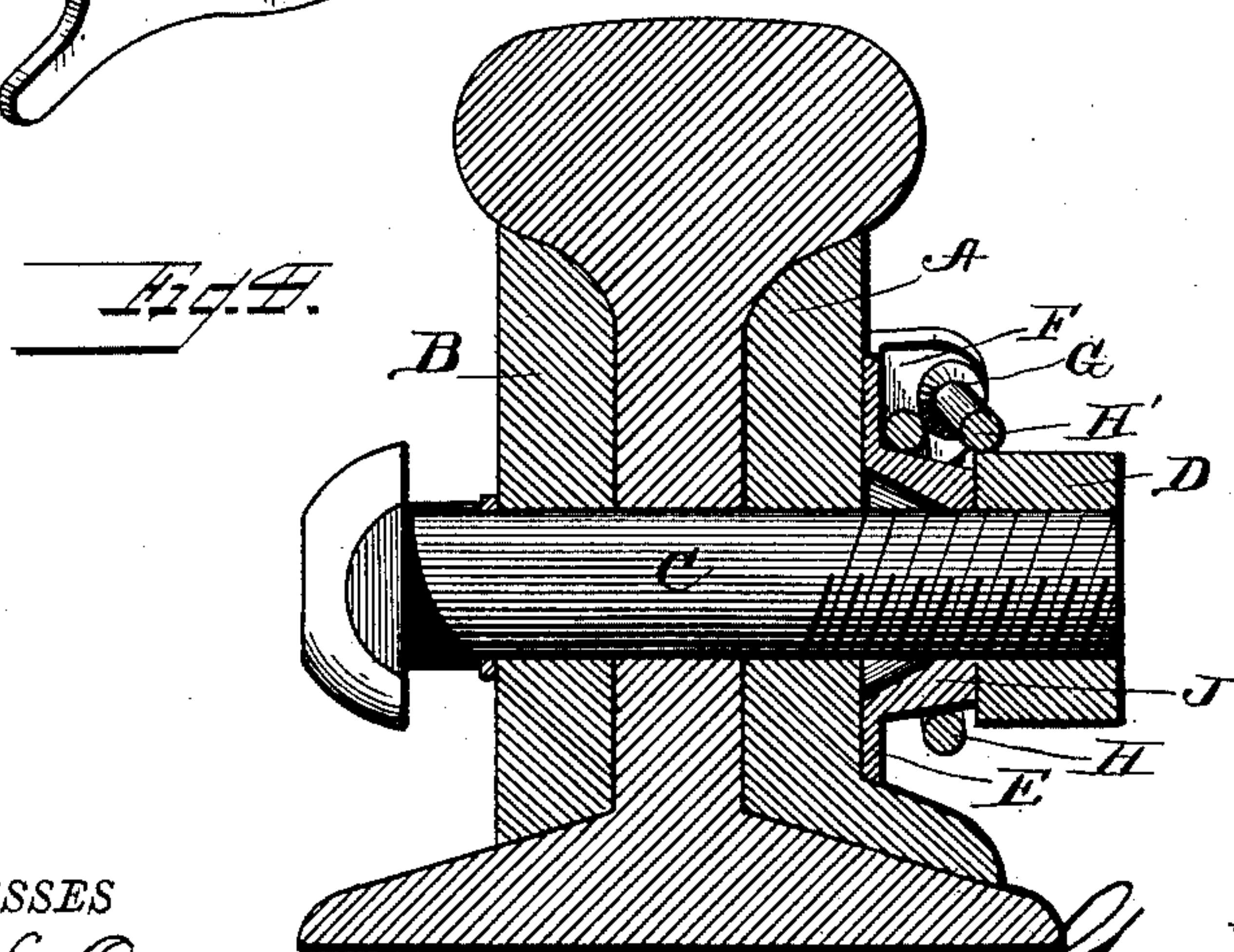
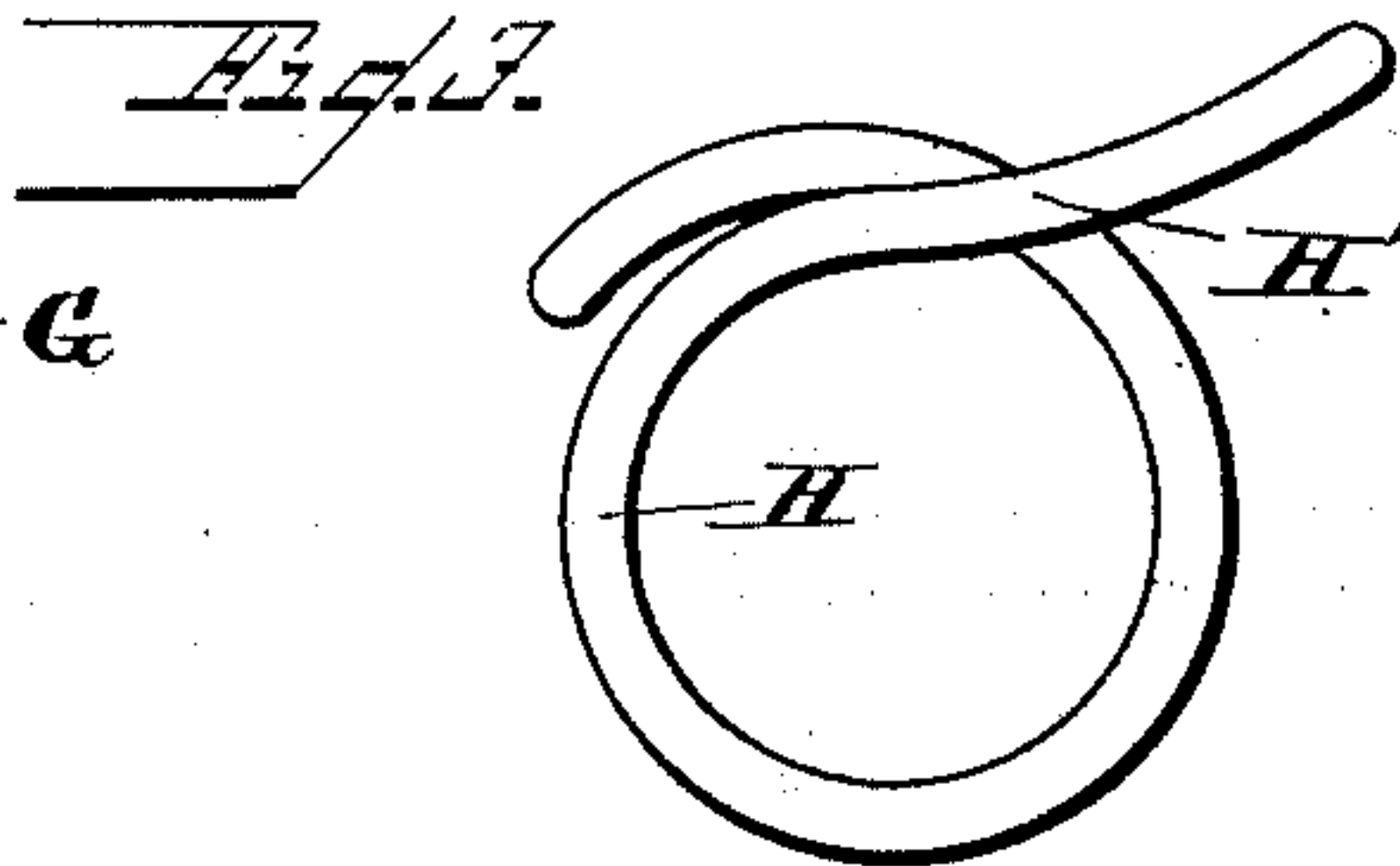
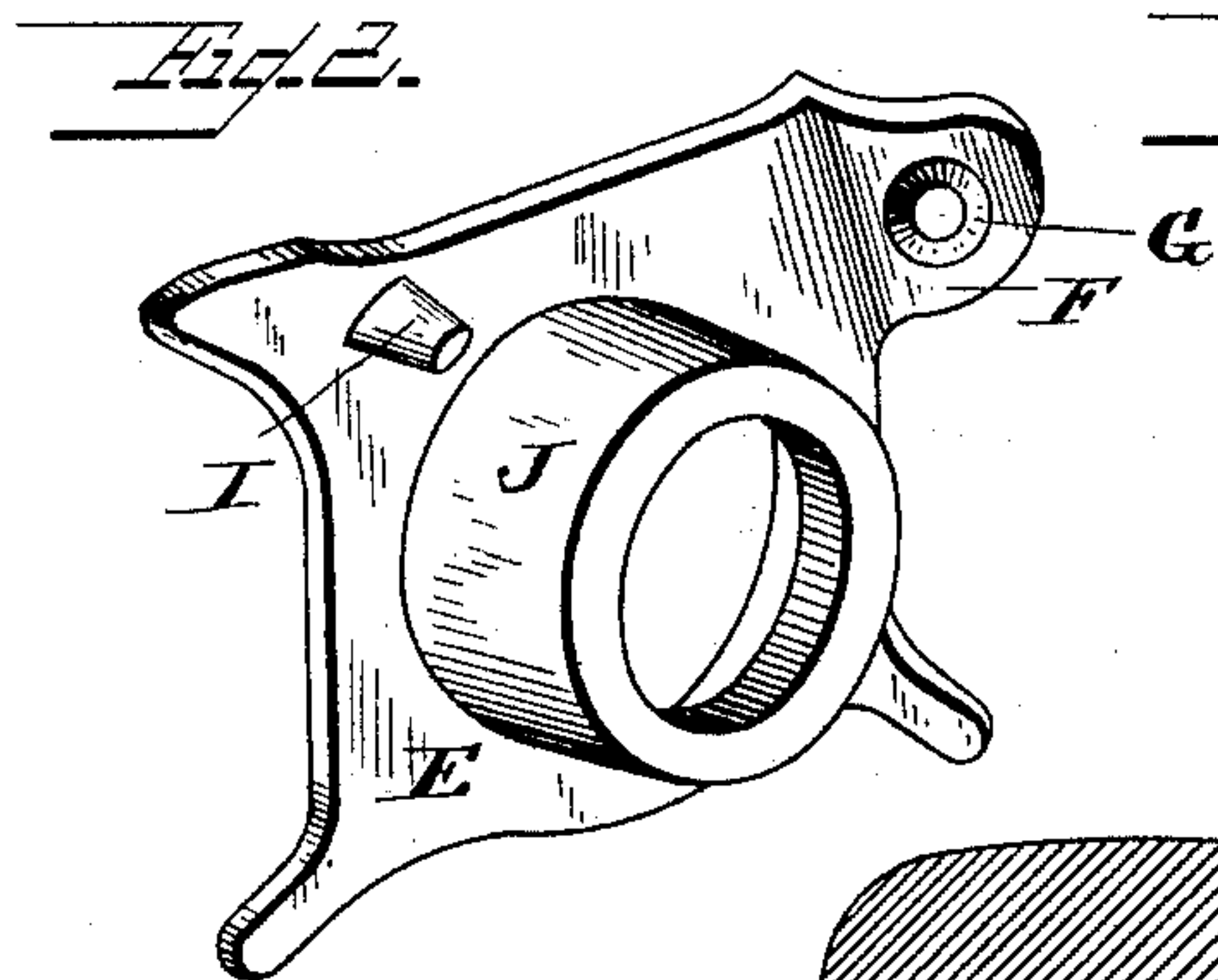
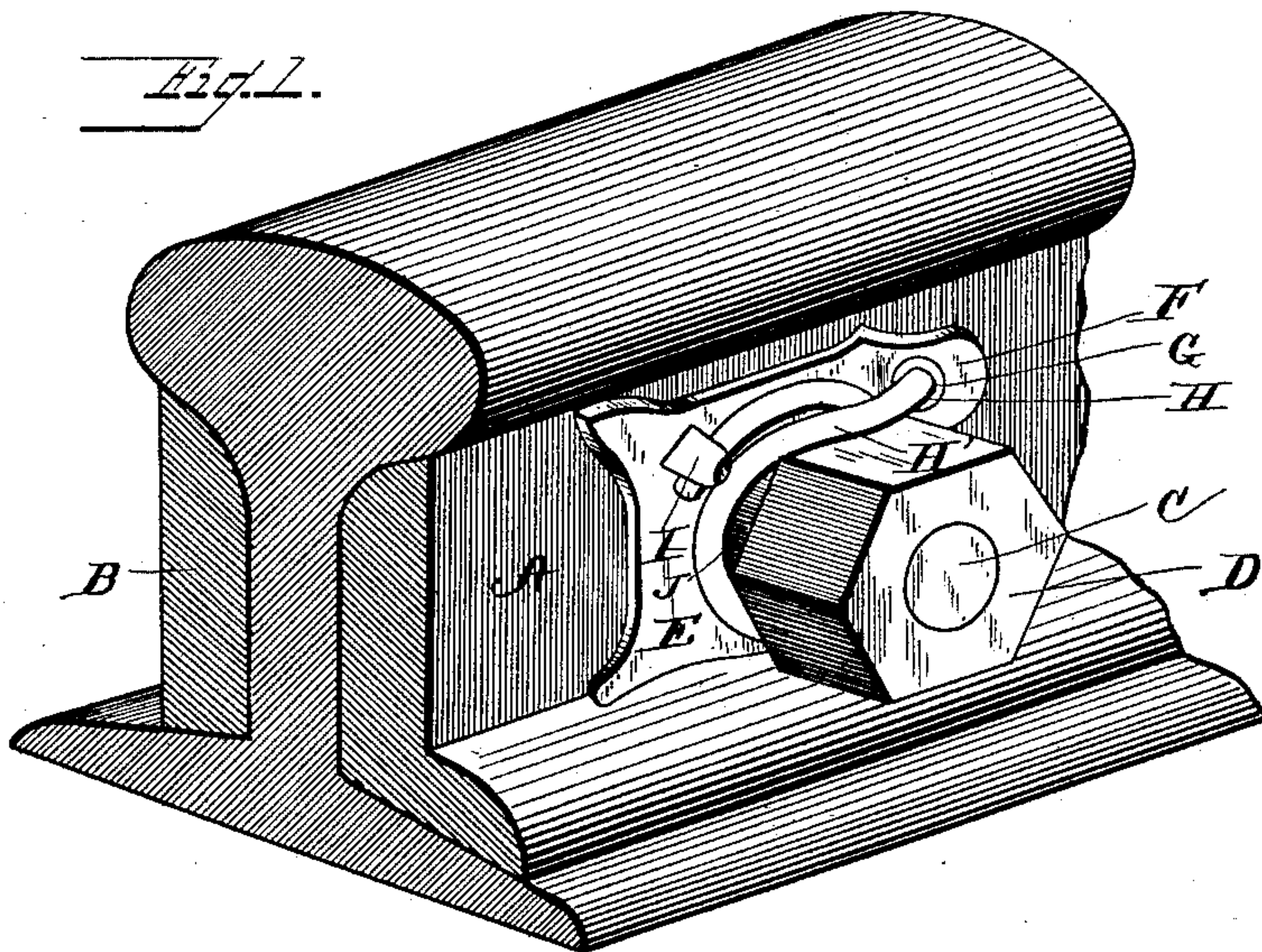
(No Model.)

G. E. CLARKE.

NUT LOCK.

No. 363,594.

Patented May 24, 1887.



WITNESSES

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UNITED STATES PATENT OFFICE.

GREVILLE E. CLARKE, OF RACINE, WISCONSIN.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 363,594, dated May 24, 1887.

Application filed February 14, 1887. Serial No. 227,488. (No model.)

To all whom it may concern:

Be it known that I, GREVILLE E. CLARKE, a citizen of the United States, and a resident of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Nut-Locks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved nut-lock as applied to the fish-plates of the rail-joint. Fig. 2 is a perspective view of the washer-plate which forms a part of my improved nut-lock, the spring having been removed. Fig. 3 is a perspective view of the spring removed from the washer-plate, and Fig. 4 is a longitudinal sectional view through the bolt with its nut and nut-lock.

Like letters of reference denote corresponding parts in all the figures.

This invention has relation to that class of nut-locks more particularly intended for use on rail-joints in which the end is prevented from working loose upon the bolt after it has been secured home by means of a coiled spring fastened upon the washer-plate and overlapping one of the sides or faces of the nut, so as to hold the same in place and prevent its turning in the direction which would loosen it, while it does not prevent the nut from being turned home upon the bolt.

The detailed construction of my improved device will be fully understood by reference to the drawings in connection with the following description of the same.

The letters A and B denote the fish-plates of a rail-joint. C is a bolt, and D the nut, which may be square, hexagonal, or octagonal, as desired. The bolt and nut are of the usual and common construction, requiring no change whatever to adapt them to be used for my improved locking device. The latter consists of a plate, E, adapted to bear with its under side against the flange of the fish-plate or the foot of the rail, as the case may be, and provided in one of its upper corners with a projecting

ear, F, having an aperture, G, for the insertion of one end of the coiled spring. (Shown at H.) On the opposite corner of plate E is a stud, I, projecting at right angles, which serves as a bearing or abutment for the other end of the coiled spring H.

Plate E is constructed with a projecting sleeve or collar, J, encircling the bolt-hole and the bolt, and forming a bearing for the coiled spring, which is twisted around it in one or more coils, and is confined between the abutment-stud I on one side and the apertured ear or projection F on the other side. The uppermost coil of the spring bulges in an outward direction, as shown at H', so as to overlap the nut, said bulge or projecting part of the spring slanting inwardly to the left, so as to clear the top part of the nut in such a manner that the latter may be turned to the right in turning it home until it bears against the projecting collar J of the washer-plate. At the same time this projecting part or bulge H' of the spring will effectually prevent the nut from working loose by turning in the opposite direction, and the nut can only be withdrawn from the bolt by pushing the overlapping or projecting part H' of the spring back forcibly, so as to clear the nut. This may be done, when desired, however, without injury to the device, so that the same may be used for any length of time without requiring renewal.

By constructing the washer-plate with the projecting sleeve or collar J, which forms a bearing or abutment for the nut, I prevent the latter from being screwed up against the spring so as to destroy the tension or elasticity of the same, so that a positive lock will always be formed by the overlapping part H' of the spring. This collar also provides a firm bearing or seat for the spring, whether the device is in use or not.

As a matter of convenience, I prefer to construct the plate with the projecting stud I for the purpose indicated—viz., to assist in holding the spring in place until the nut shall have been screwed home. This stud may, however, be omitted, if desired, without materially changing the spirit of my invention.

Having thus described my invention, I

claim and desire to secure by Letters Patent of the United States—

1. The combination, with the plate E, provided with the apertured ear F and projecting collar J, of a coiled spring, H, encircling the collar and bent to form an outwardly-projecting part or bulge, H', as and substantially for the purpose set forth.

2. The combination, with plate E, having ear F, stud I, and collar J, of the coiled spring

H, encircling the collar and bent to form an outwardly-projecting part or bulge, H', substantially as and for the purpose set forth.

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

GREVILLE E. CLARKE.

Witnesses:

JNO. W. KNIGHT,

J. W. PALMER.