

J. J. TOWER.
Hand-Cuffs and Shackles.

No. 151,452.

Patented May 26, 1874.

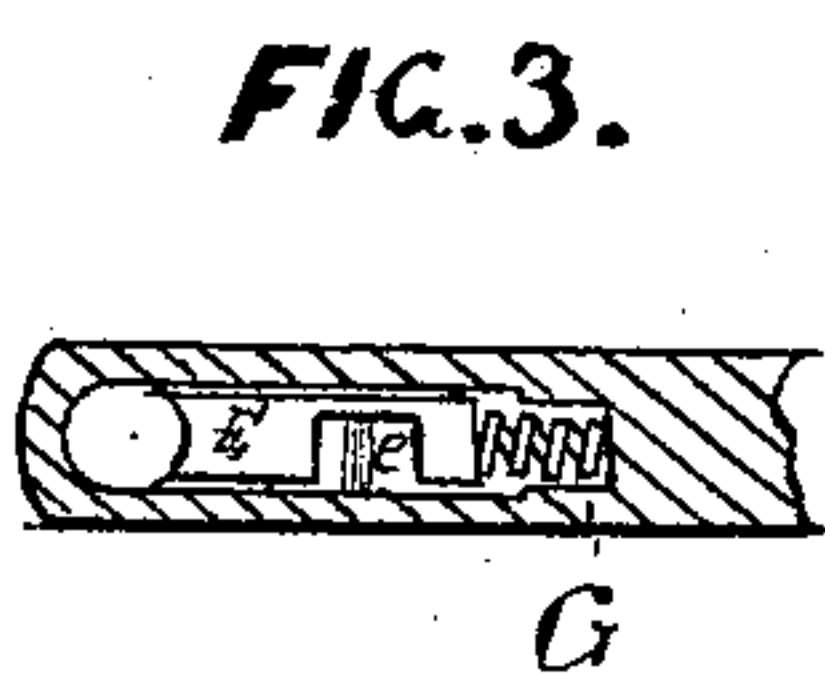
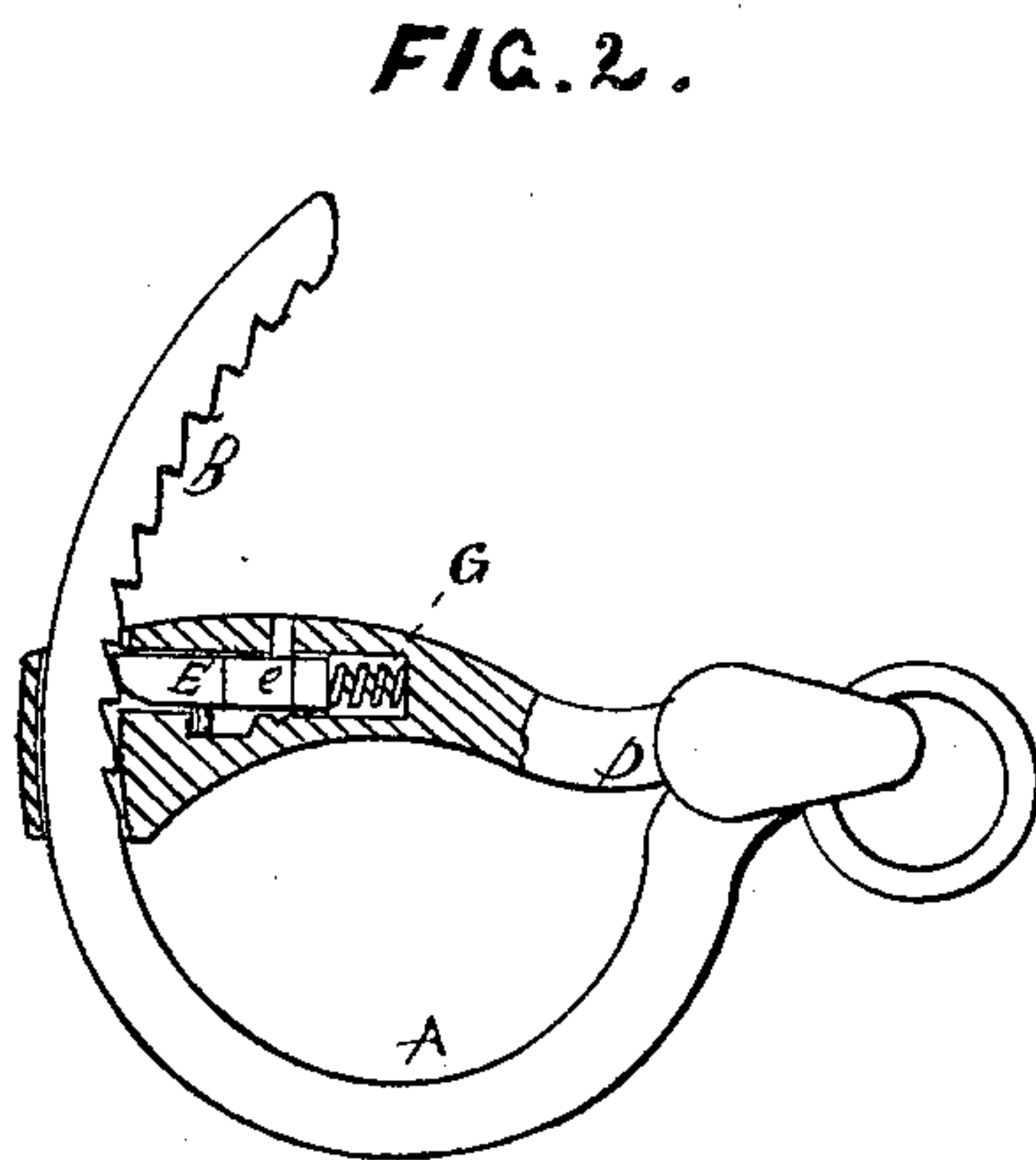
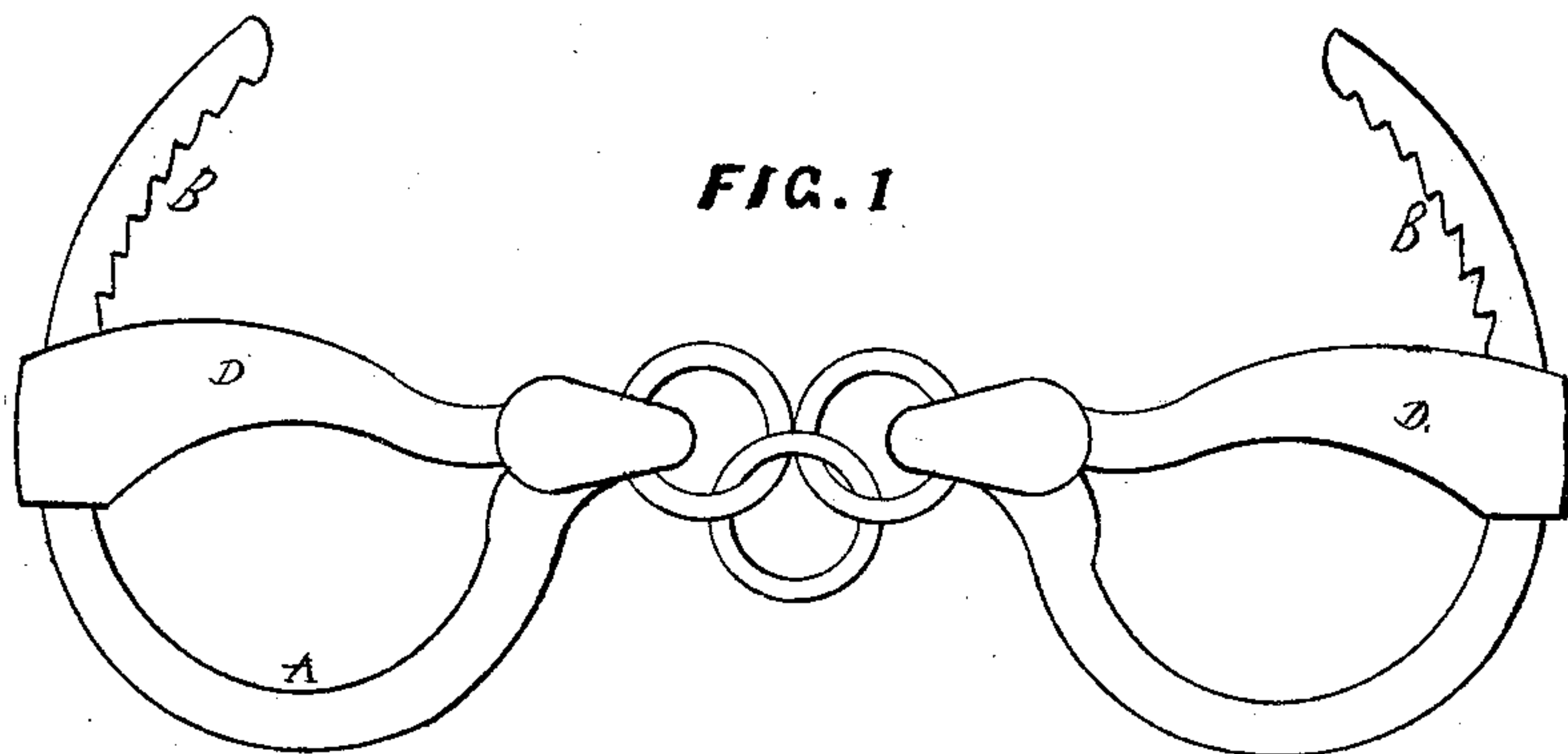
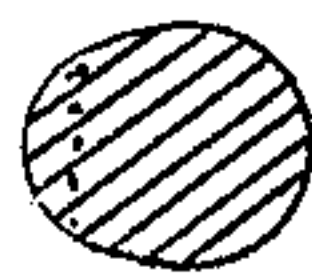


Fig. 4



WITNESSES

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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN HANDCUFFS AND SHACKLES.

Specification forming part of Letters Patent No. **151,452**, dated May 26, 1874; application filed August 18, 1871.

To all whom it may concern:

Be it known that I, JOHN J. TOWER, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Handcuffs and Shackles, of which the following is a specification:

In the accompanying drawings, Figure 1 is a side view of my improved handcuff and shackle. Fig. 2 is a section of the lock, showing the arms in place. Fig. 3 is a section of the lock cut transversely to the small arm. Fig. 4 is an enlarged transverse section of the smaller arm.

My invention consists, first, in making the small arm in such form that a transverse section of the same shall be an oval with its smaller curve and most prominent part on the side where the teeth or ratchets are situated, for the double purpose of allowing deeper notches without weakening too much the arm, and also to prevent the insertion of a watch-spring or other instrument for opening the lock. Secondly, it consists in combining with the above a peculiar construction of lock for handcuffs and shackles.

An important object in making handcuffs and shackles is to have the same light and neat, and yet not liable to be broken. Also, it is important to make the wire of the small arm of such diameter that a watch-spring will not enter the lock in order to push back the bolt.

In the construction of my improved handcuffs and shackles the general form of the same may be that which is now most approved, as seen in Fig. 1 of the accompanying drawings. The wire of the smaller arm A is made protuberant on the side where the teeth of the lock are to be cut, as shown in Fig. 4, which is a transverse section of the arm, and somewhat enlarged in order better to show the form. By this means the teeth or notches B

do not weaken the arms so much as usual, and yet give room for deeper notches. At the same time the sharper curve at this side prevents the insertion of a watch-spring or other instrument for pushing back the bolt of the lock.

My lock is also very peculiar in the arm of the shackle or handcuff. A recess or chamber is made in the shorter and larger arm D long enough to receive a strong bolt, E, and coiled spring, G, which presses against the end of the bolt E to push it forward. The bolt E has a simple notch, *e*, for the key to work in.

Instead of the oval arm above described, the notches may be made upon a cylindrical arm, but I prefer the oval. In both cases the notches are made on a curved surface of the arm instead of a flat surface, as in the case of a quadrangular arm; and also in both of my modifications I avoid having a side lip to the notches, which side lips act as a bridge to guide the picklock past the notches. Therefore my cylindrical arm is different from the common handcuff.

I do not broadly claim a coiled spring in the lock of a handcuff, but limit myself to above-described arrangement of such spring with the bolt.

Having described my invention, I claim—

1. A handcuff, in which the male arm has rounded edges instead of being quadrangular, and the notches made upon a circumferentially-curved surface, in the manner and for the purposes set forth.

2. The arrangement of the bolt E, and coiled spring G, in combination with the cylindrical or rounded arm D, substantially as set forth.

JOHN J. TOWER.

Witnesses:

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