

No. 679,028.

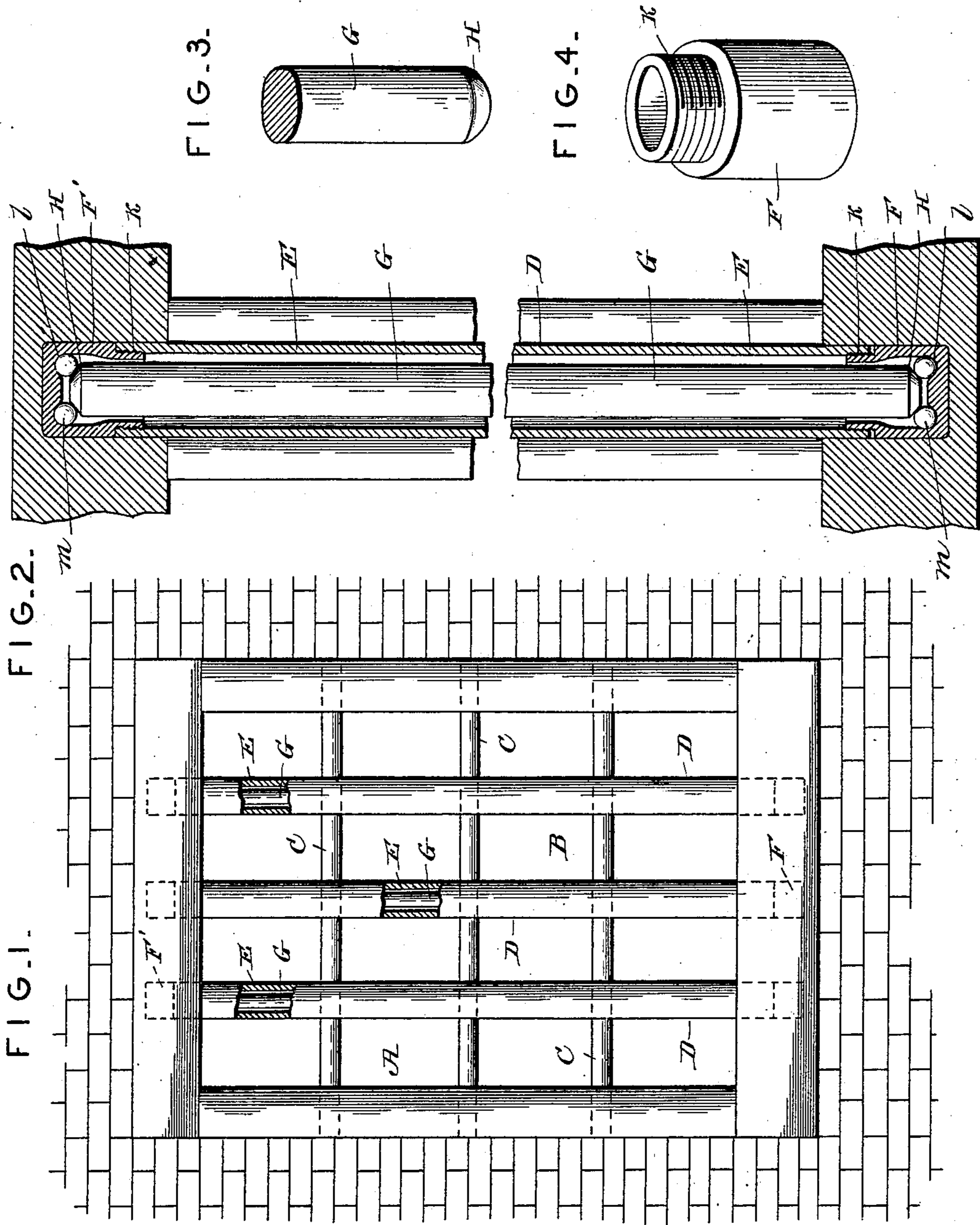
Patented July 23, 1901.

W. H. LARMORE.

BURGLAR PROOF BAR FOR WINDOW GRATINGS.

(Application filed Dec. 28, 1900.)

(No Model.)



ATTEST-

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# UNITED STATES PATENT OFFICE.

WALTER H. LARMORE, OF ANDERSON, INDIANA.

## BURGLAR-PROOF BAR FOR WINDOW-GRATINGS.

SPECIFICATION forming part of Letters Patent No. 679,028, dated July 23, 1901.

Application filed December 28, 1900. Serial No. 41,390. (No model.)

*To all whom it may concern:*

Be it known that I, WALTER H. LARMORE, a citizen of the United States, and a resident of Anderson, in the county of Madison and State of Indiana, have made a certain new and useful Invention in Burglar-Proof Bars for Window-Gratings, &c.; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a front elevation of my invention as applied, parts being broken away. Fig. 2 is a longitudinal central section of one of my bars. Fig. 3 is a detail view of the end of one of the core stems or rods G. Fig. 4 is a detail view of one of the sections F.

The invention relates to gratings for windows, doors, and other places needing such protection; and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter A designates a window which is designed to be provided with a grating, (represented at B.)

C C are the cross-bars, which are of ordinary character, secured in the walls of the window.

D D indicate the vertical bars, which are placed close enough together to afford proper protection. Each bar consists of a tubular or hollow casing E, of iron or other metal, having at its lower end a separable section F, which forms the foot of the bar, a hard-steel rod or core-stem G, inclosed in said tubular casing, and ball-bearings H for the end or ends of the steel rod. In the construction shown the foot-section F of the tubular or hollow casing or outer portion of the grating-bar is threaded to connect with the threaded end of said tubular casing, as indicated at k. In the section F is provided a ball-bearing seat l, having the antifriction-balls m, on which the pivotal end of the interior steel rod rests, said end being suitably beveled or rounded to properly engage the ball-bearings. The upper end of the bar may be

similarly formed, having a separable section F' and a ball-bearing seat therein to engage the upper end of the interior steel stem or core-rod.

When used to form a grating, as indicated, these bars do not differ in appliance from ordinary grating-bars; but they nevertheless afford much greater security, as on account of the ball-bearings it is impracticable to file through the interior steel rods or cores which extend from end to end of the window.

These grating-bars are especially adapted to use in the windows and doors of prisons and banks, as well as of private residences, as even when exposed to the weather, as such gratings usually are, there is no danger of the core rods or stems becoming attached to the ball-bearings of their end seats by oxidation or otherwise.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a pivotal grating-bar, of a ball-bearing end seat, substantially as specified.

2. A grating-bar, consisting of a metallic casing, having a foot-section provided with a ball-bearing seat, and a pivotal steel core-rod within said casing, having its end engaging said ball-bearing seat, substantially as specified.

3. A grating-bar, consisting of a metallic casing or tube having end sections provided with ball-bearing seats, and an interior pivotal steel core-rod extending from end to end of the window, provided with beveled or rounded ends to engage the ball-bearings, substantially as specified.

4. A grating-bar, consisting of a metallic casing, or tube having separable end sections provided with ball-bearing end seats, and an interior pivotal steel core-rod, having ends engaging the ball-bearings of said end seats, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WALTER H. LARMORE.

Witnesses:

DE WITT C. CHIPMAN,  
G. T. LARMORE.