

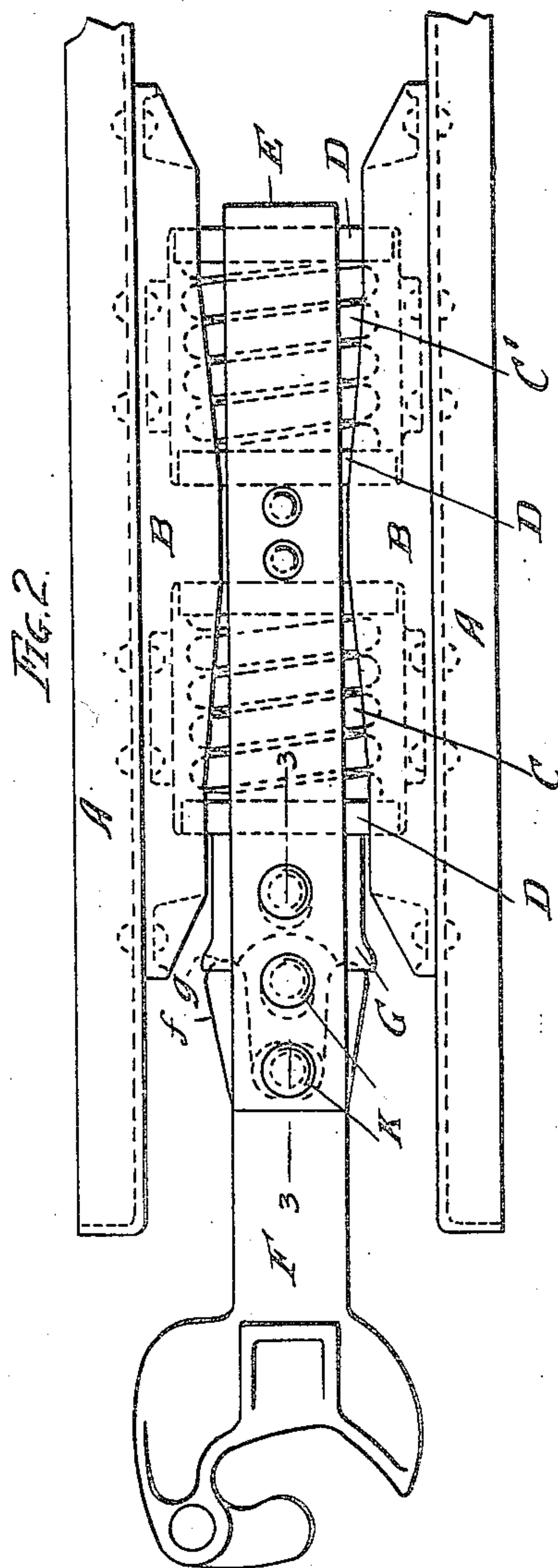
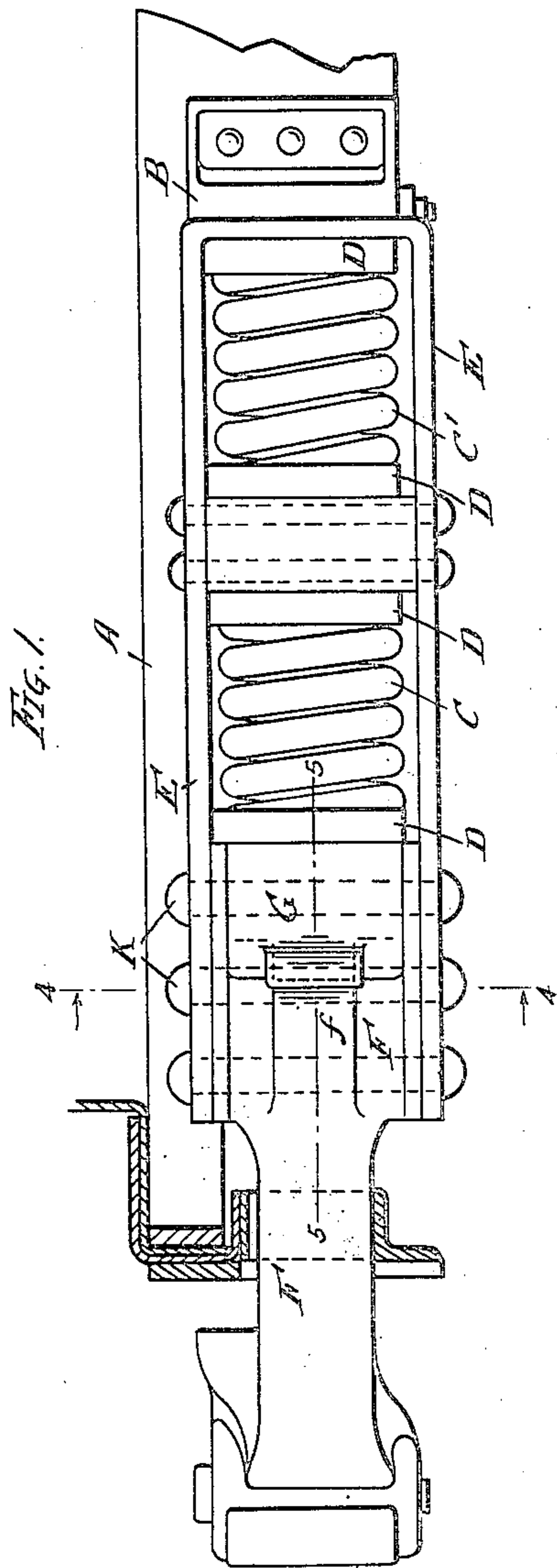
No. 829,731.

PATENTED AUG. 28, 1906.

J. F. O'CONNOR.
DRAFT RIGGING FOR RAILWAY CARS.

APPLICATION FILED JUNE 6, 1906.

2 SHEETS—SHEET 1.



WITNESSES:

F. B. Townsend
A. W. Munday

INVENTOR

John F. O'Connor

BY

Munday, Courts & Adcock.
his ATTORNEYS

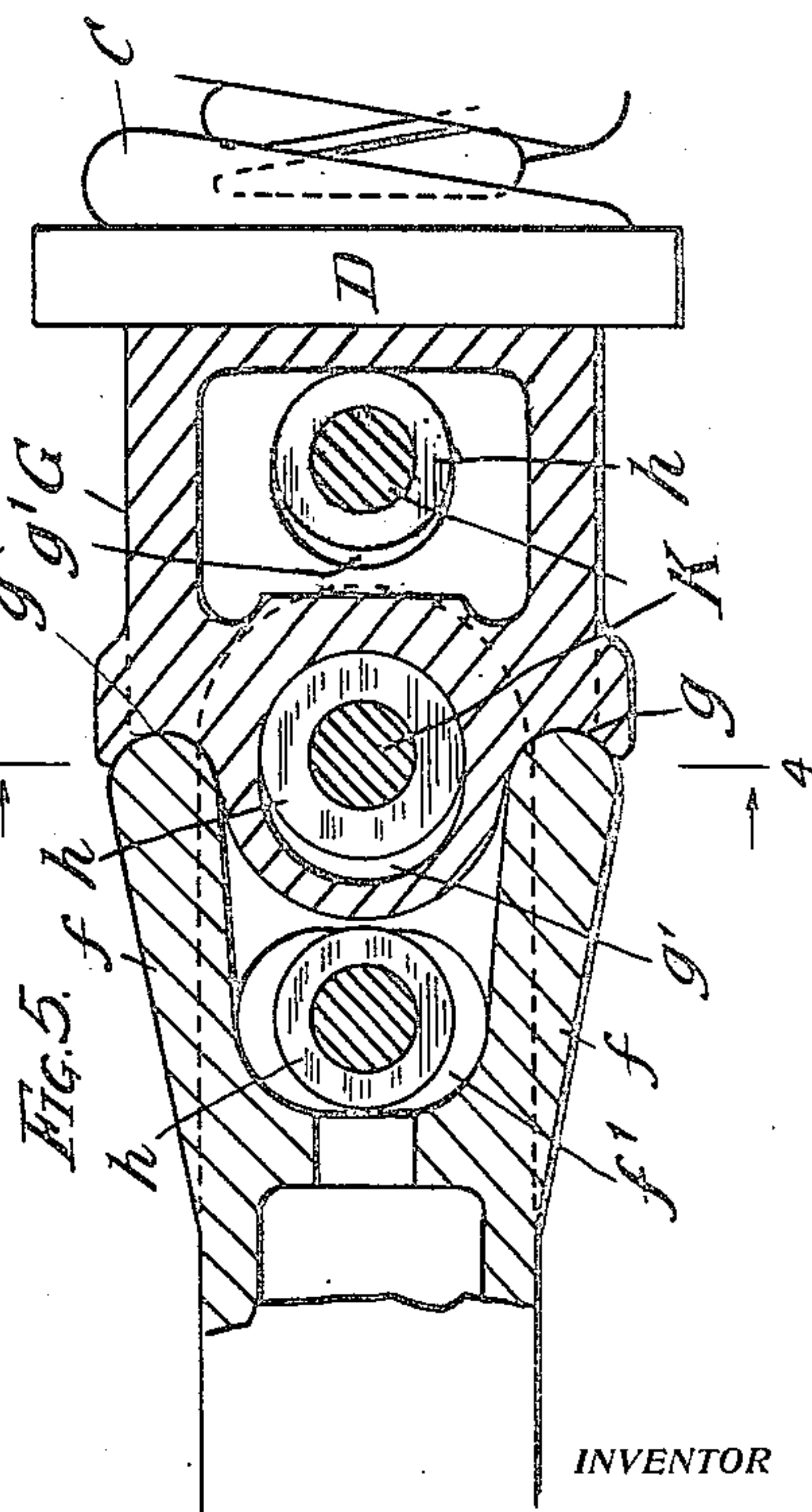
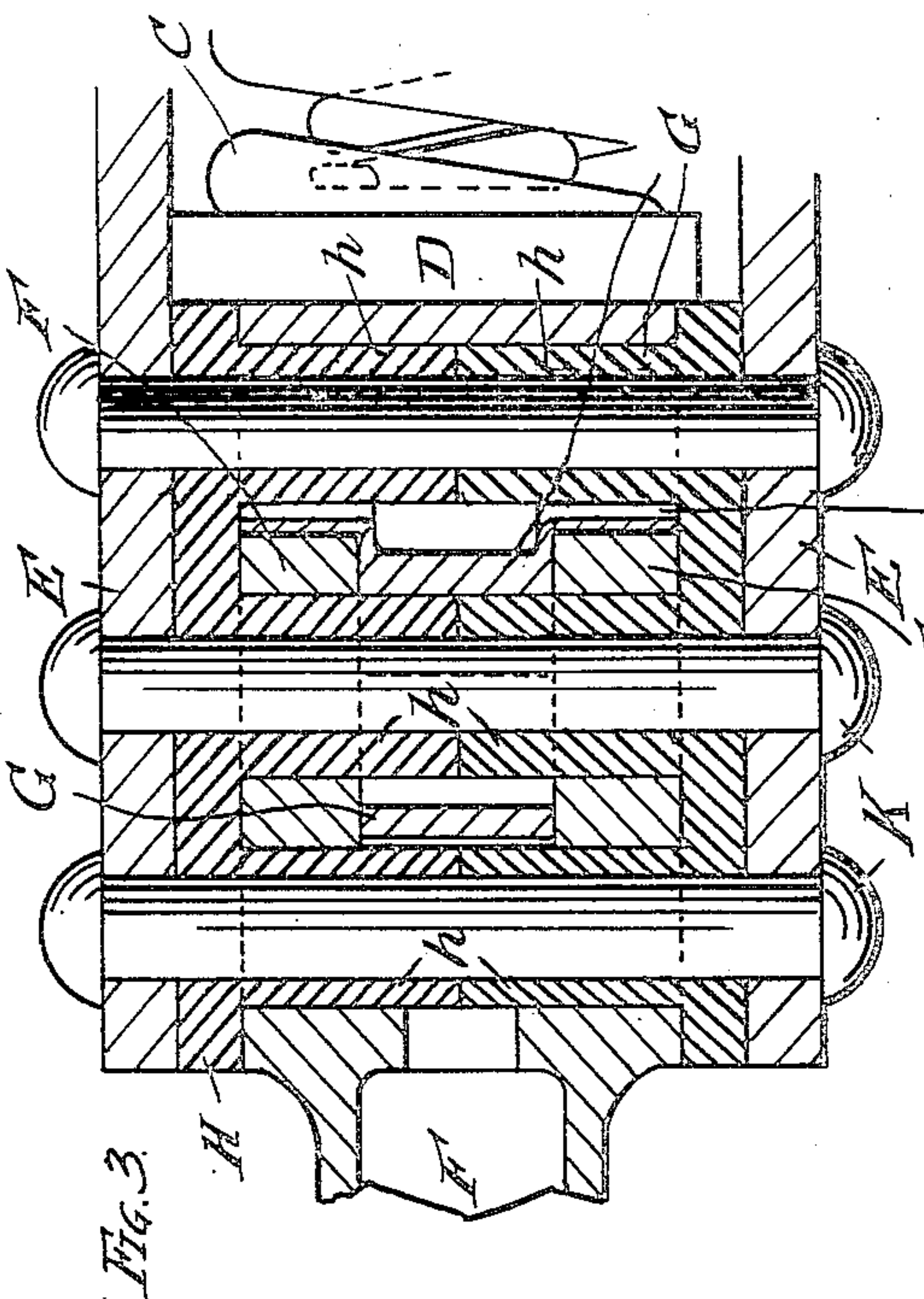
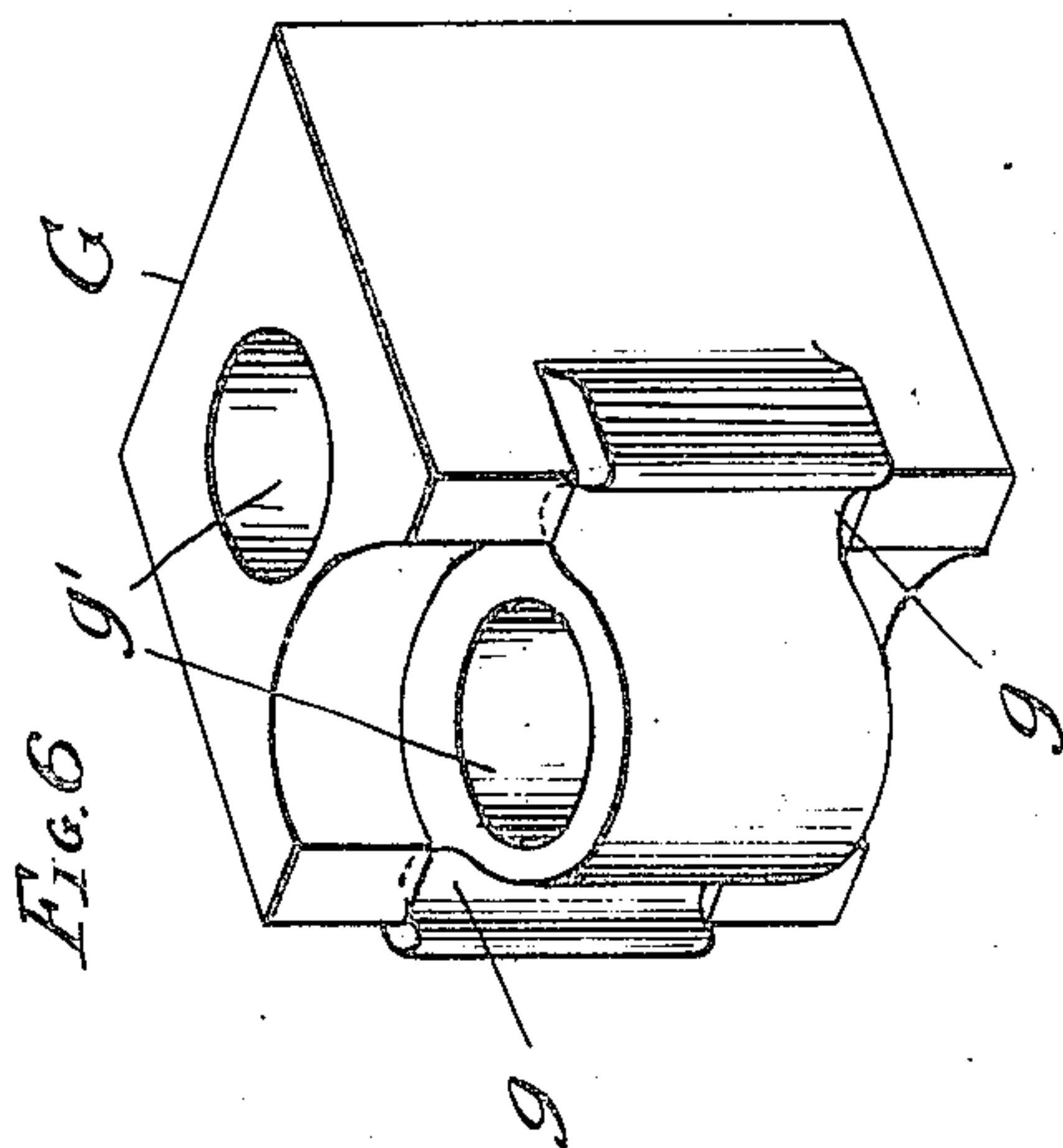
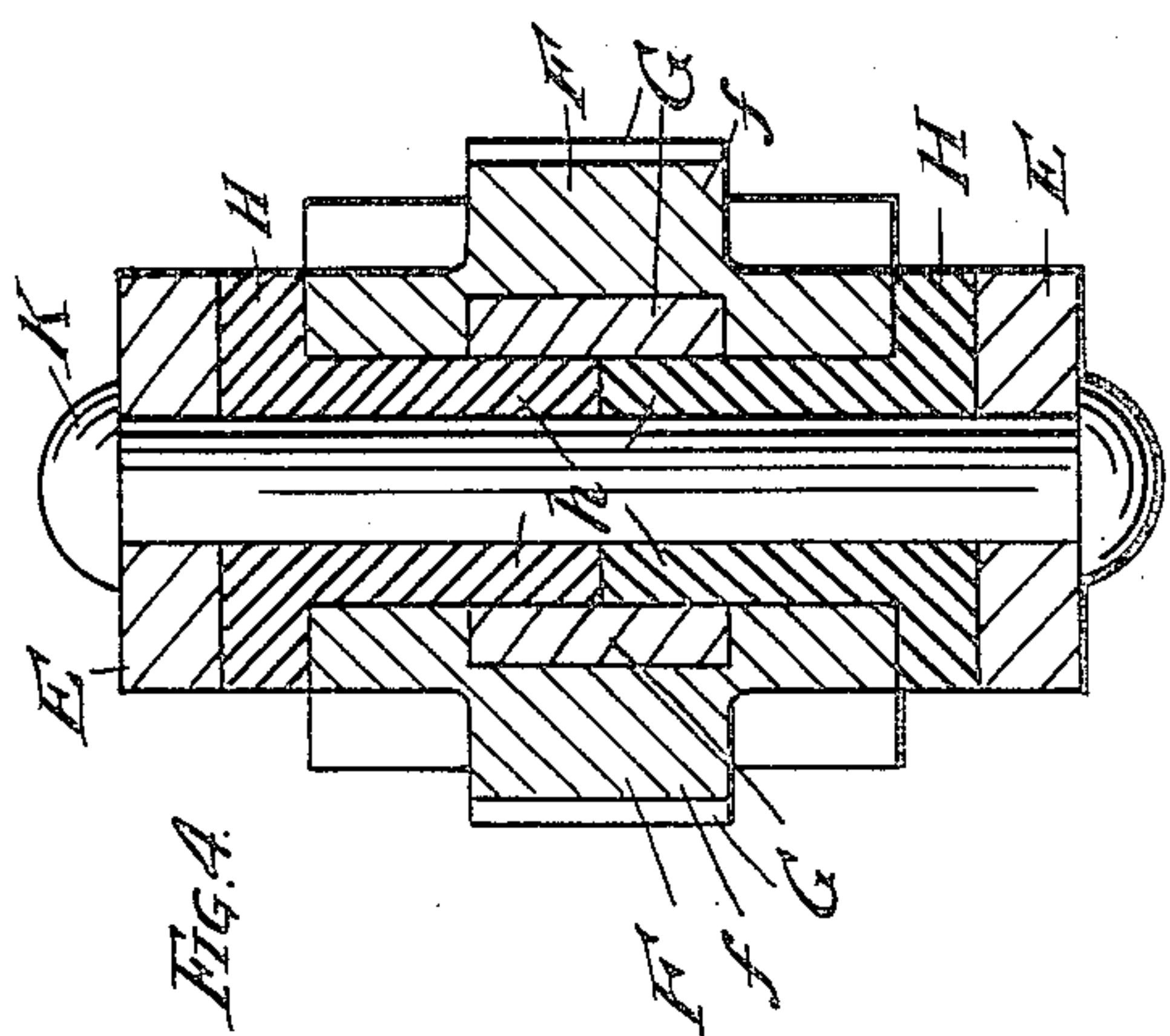
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UNITED STATES PATENT OFFICE.

JOHN F. O'CONNOR, OF CHICAGO, ILLINOIS, ASSIGNOR TO W. H. MINER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

DRAFT-RIGGING FOR RAILWAY-CARS.

No. 829,731.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed June 6, 1906. Serial No. 320,382.

To all whom it may concern:

Be it known that I, JOHN F. O'CONNOR, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Draft-Rigging for Railway-Cars, of which the following is a specification.

My invention relates to improvements in draft-rigging for railway-cars, and more particularly to means for causing the springs of the draft-rigging to center the draw-bar.

The object of my invention is to provide a railway-car draft-rigging of a strong, simple, efficient, and durable construction, in which the draw-bar may have a pivotal connection with the draw-bar strap, yoke, or extension to permit of the necessary lateral movement of the draw-bar as the train passes around curves, and in which the springs of the draft-rigging will operate to automatically center the draw-bar or restore it to its central position.

My invention consists in the means I employ to practically accomplish this object or result—that is to say, it consists, in connection with the side plates or stop-castings, springs, and followers of the draft-rigging, of a draw-bar and a draw-bar strap, yoke, or extension having a pivotal connection therewith to enable the draw-bar to swing laterally, as required in passing around curves, in providing the draw-bar at its rear end with a pair of lateral pivot-arms which cooperate with a longitudinally-movable draw-bar centering-block, interposed between the rear end of the draw-bar and the front follower, and having a pair of lateral pivot-seats engaging the lateral pivot-arms on the rear end of the draw-bar, and a pair of filler-blocks, each furnished with three hubs or thimbles to receive the rivets which connect the draw-bar with its yoke, strap, or extension, the draw-bar having a transversely-arranged slot to receive the front hub or thimble of the filler-blocks and the longitudinally-movable draw-bar centering-block having longitudinally-arranged slots to receive the middle and rear hubs or thimbles of the filler-blocks, thus very strongly and securely connecting the draw-bar with its strap, yoke, or extension, and at the same time permitting the draw-bar to swing laterally as required, the lateral movement of the draw-bar operating through its lateral pivot-arms to move the draw-bar

centering-block longitudinally, and thus compress the springs of the draft-rigging, so that the draft-rigging springs will themselves automatically operate to center the draw-bar or restore it to its central position.

My invention also consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown or described.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation, partly in central vertical longitudinal section, of a draft-rigging with a draw-bar centering device or mechanism embodying my invention. Fig. 2 is a plan view. Fig. 3 is a central vertical longitudinal section on line 3 3 of Fig. 2, enlarged. Fig. 4 is a vertical section on line 4 4 of Fig. 1, enlarged. Fig. 5 is a horizontal section on line 5 5 of Fig. 1, enlarged; and Fig. 6 is a detail perspective view of the draw-bar centering-block.

In the drawings, A represents the center sills or frame pieces of the car to which the side plates or stop-castings B of the draft-rigging are secured. C C' are tandem-arranged springs; D, the followers; E, the draw-bar strap, yoke, or extension; F, the draw-bar; G, the draw-bar centering-block; H, the filler-blocks, and K the rivets, which connect the strap or yoke E of the draw-bar.

The draw-bar F is furnished with a pair of lateral rocker or pivot arms *f*, one fitting on each side of the middle rivet K, about which as a center the draw-bar turns in its laterally-swinging movement. These rocker or pivot arms F on the draw-bar engage corresponding seats or bearings *g* of the draw-bar centering-block G, which is interposed between the rear end of the draw-bar and the front follower D. These lateral rocker or pivot arms *f* on the draw-bar thus prevent lateral or swinging movement of the draw-bar unless causing a corresponding longitudinal movement of the draw-bar centering-block G and consequent compression of the follower-spring abutting against the follower D. The filler-blocks H H are each furnished with three integral hubs or thimbles *h* to receive the rivets K, which connect the draw-bar strap with the draw-bar. Two of these filler-blocks—an upper one and a lower one—are employed for convenience in assembling the parts. The draw-bar has a laterally-arranged slot *f'*, in which the front hubs or

thimbles *h* of the filler-blocks *H* fit, so as to permit the draw-bar to swing laterally about the middle rivet *K* as a center. The longitudinally-movable draw-bar centering-block *G* is furnished with longitudinally-arranged slots *g'*, through which the middle and rear filler-block hubs or thimbles *h* project, so as to permit the centering-block *G* to have the necessary longitudinal movement when the draw-bar swings laterally. All the rivets *K* extend through the draw-bar strap or yoke *E*, but only two of the rivets *K* extend through the draw-bar—the middle one and the front one. The rear rivet *K* extends through the draw-bar centering-block and the strap *E*, but does not extend through the draw-bar; but the rear rivet aids through the draw-bar centering-block in connecting the draw-bar with its strap or yoke *E*, so that a very strong, safe, and secure connection is thus provided between the draw-bar and its strap or yoke, while at the same time enabling the draw-bar to swing laterally as required and causing the draft-rigging springs themselves to serve as a means for centering the draw-bar or restoring it to its normal central position.

I claim—

1. In a draft-rigging, the combination with the side plates or stop-castings, springs and followers, of a draw-bar strap or extension and a draw-bar having a pivotal connection therewith to enable it to swing laterally, said draw-bar being provided with lateral pivot or rocker arms, and a longitudinally-movable draw-bar centering-block interposed between the rear end of the draw-bar and the front follower and having lateral seats or bearings to engage said lateral rocker or pivot arms on the draw-bar to cause the draft-rigging spring to be compressed when the draw-bar swings laterally, and thus to center the draw-bar or restore it to position through the action of the draft-rigging spring itself, and filler-blocks and rivets connecting the draw-bar, draw-bar strap and draw-bar centering-block, substantially as specified.

2. In a draft-rigging, the combination with the side plates or stop-castings, springs and followers, of a draw-bar strap or extension, and a draw-bar having a pivotal connection therewith to enable it to swing laterally, said draw-bar being provided with lateral pivot or rocker arms, and a longitudinally-movable draw-bar centering-block interposed between the rear end of the draw-bar

and the front follower and having lateral seats or bearings to engage said lateral rocker or pivot arms on the draw-bar to cause the draft-rigging spring to be compressed when the draw-bar swings laterally, and thus to center the draw-bar or restore it to position through the action of the draft-rigging spring itself, filler-blocks furnished with hubs or thimbles, rivets connecting the draw-bar with its strap or yoke and extending through the filler-blocks, the draw-bar having a transverse slot to receive the front rivet and filler-block hub or thimble, and the draw-bar centering-block having a longitudinal slot to receive the rivet and filler-block hub or thimble passing through it, substantially as specified.

3. In a draft-rigging, the combination with the spring and follower, of a draw-bar strap or yoke, a draw-bar pivotally connected to said draw-bar or yoke and having lateral pivot or rocker arms, and a longitudinally-movable draw-bar centering-block having seats or bearings engaging said arms on the draw-bar, filler-blocks furnished with three hubs or thimbles to receive the rivets, rivets passing through the draw-bar strap or yoke and said hubs or thimbles, the draw-bar having a transverse slot to receive the front rivet and filler-block hubs or thimbles, and the draw-bar centering-block having longitudinal slots to receive the middle and rear rivets and filler-block hubs or thimbles, substantially as specified.

4. A draft-rigging and draw-bar centering mechanism consisting in the combination with a draw-bar, of a draw-bar strap or yoke, draft-rigging spring and followers, and a longitudinally-movable draw-bar centering-block interposed between the front follower and the draw-bar, the draw-bar being provided with lateral rocker or pivot arms, and said centering-block having seats to engage said arms, and means comprising a pair of filler-blocks and three rivets connecting the draw-bar, draw-bar strap and draw-bar centering-block, whereby the draw-bar is permitted to swing laterally and the centering-block to move longitudinally and compress the draft-rigging spring as the draw-bar swings laterally and thereby cause it to be restored to position, substantially as specified.

JOHN F. O'CONNOR.

Witnesses:

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PEARL ABRAMS.