No. 754,669. PATENTED MAR. 15, 1904.

W. H. MINER.

TANDEM SPRING DRAFT RIGGING.

APPLICATION FILED OCT. 12, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

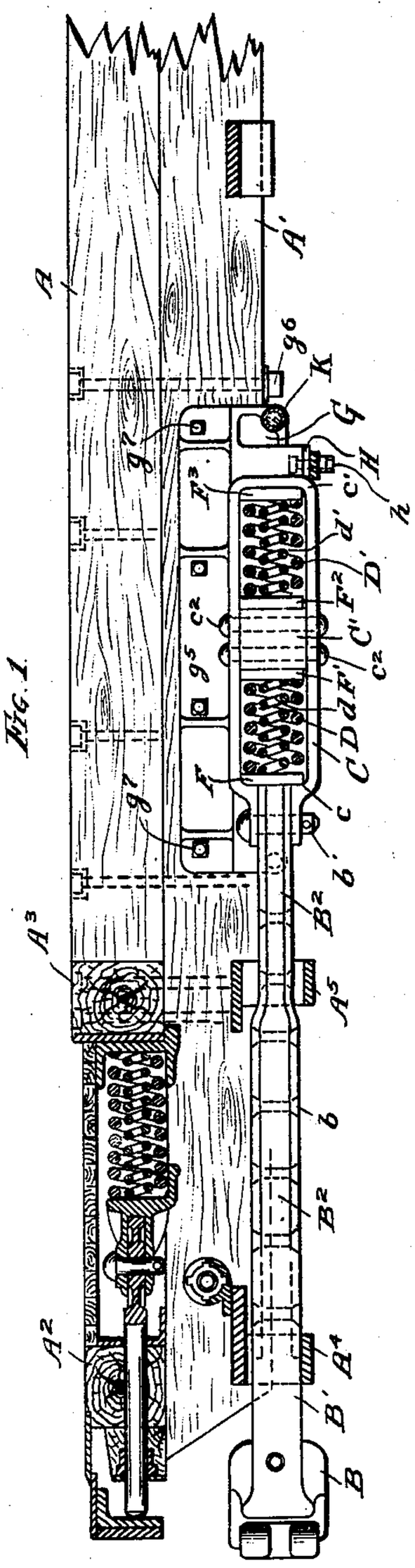

FIG. 1.

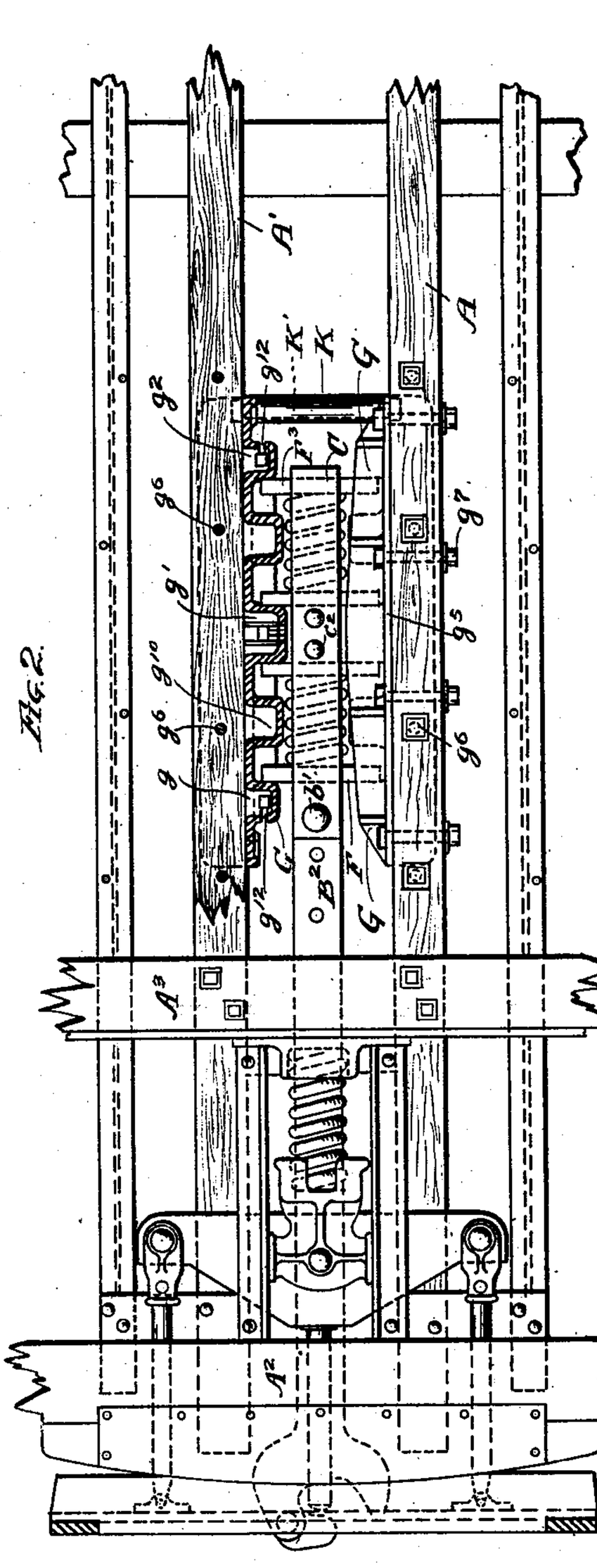

FIG. 2.

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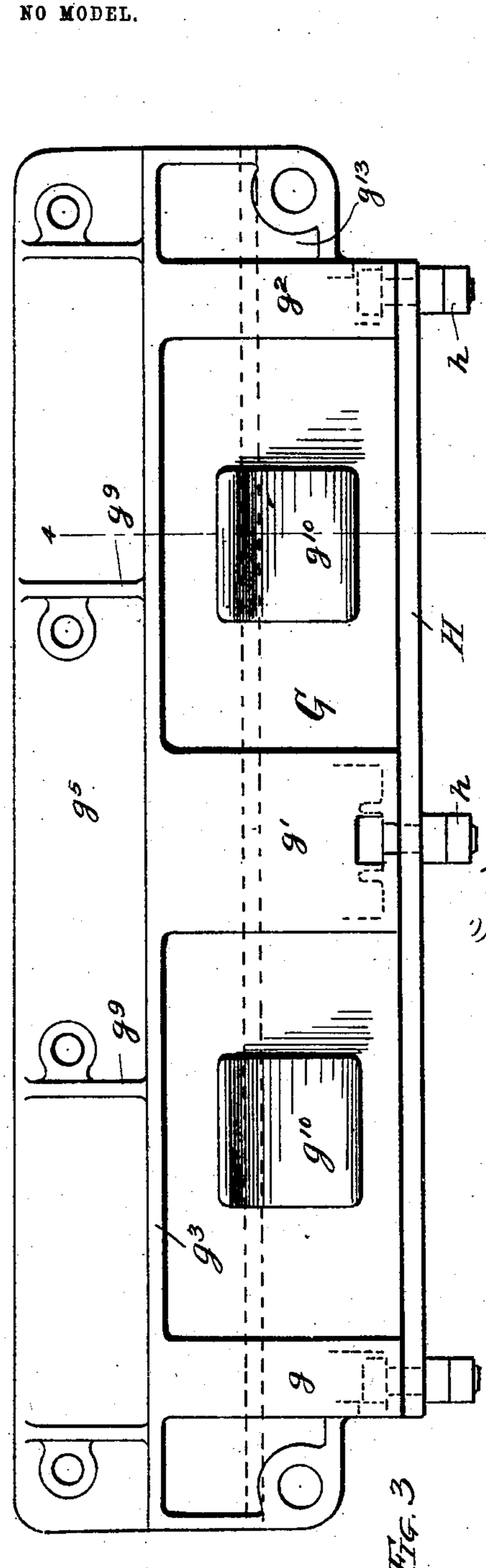

FIG. 3

FIG. 5

FIG. 4

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UNITED STATES PATENT OFFICE.

WILLIAM H. MINER, OF CHICAGO, ILLINOIS, ASSIGNOR TO W. H. MINER COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

TANDEM-SPRING DRAFT-RIGGING.

SPECIFICATION forming part of Letters Patent No. 754,669, dated March 15, 1904.

Application filed October 12, 1903. Serial No. 176,627. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. MINER, 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 Tandem-Spring Draft-Rigging, of which the following is a specification.

My invention relates to improvements in tandem-spring draft-rigging for railway-cars, and more particularly to draft-rigging designed for use upon passenger-cars.

The object of my invention is to provide a tandem-spring draft-rigging for railway passenger-cars of a simple, strong, efficient, and durable construction.

My invention consists in the novel construction of parts and devices and in the novel combinations of parts and devices herein shown and described, and more particularly specified in the claims.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation, partly in longitudinal section, of a tandem-spring draft-rigging for passenger-cars embodying my invention. Fig. 2 is a plan view partly in horizontal section. Fig. 3 is an enlarged detail front elevation of one of the stop-castings. Fig. 4 is a vertical cross-section on line 4 4 of Fig. 3, and Fig. 5 is a rear elevation of the stop-castings.

In said drawings, A represents the longitudinal sills of the passenger-car, A′ the draft-sills beneath the main longitudinal sills, and A^2 A^3 the cross-sills.

B is the coupler, B′ its integral draw-bar, and B^2 the draw-bar extension, formed of wrought metal or steel bars connected by struts or rivets *b*.

C is the pocket strap or yoke of the draft-rigging, pivotally connected at its front end by the pivot-pin *b*′ to the rear end of the draw-bar extension B^2.

A^4 A^5 are the front and rear carry-irons which support the draw-bar of the coupler and permit it to swing laterally, as required, in passing around curves.

The pocket strap or yoke C has bends or shoulders *c* at its front end to engage the front follower F and a bend or shoulder *c*′ to engage the rear follower F^3 and an abutment-block C′ at its middle portion to engage the middle followers F′ F^2.

D *d* and D′ *d*′ are the tandem-arranged springs between the front pair and rear pair of followers.

The abutment-block C′ is secured to the pocket strap or yoke C by rivets c^2, extending through the same.

G G are the side plates or stop-castings, each furnished with stops *g* *g*′ g^2 for the followers to abut against. Each of the stop-castings G is furnished with an upper flange g^3 to guide or inclose the followers and the yoke C, which fits between the stop-castings. Each of the stop-castings G is also furnished with a horizontal projecting flange or web g^4, which fits under and against the draft-sill A′, and also with an upright flange g^5, which fits against the inner side or face of the draft-sill. Vertical bolts g^6 and horizontal bolts g^7, extending through these flanges, secure the stop-casting firmly and rigidly to the draft-sill. Connecting or bracing upright brackets or flanges g^8 g^9 strengthen the flanges g^4 g^5 and the stop-casting as a whole. To form lateral guides for the springs and keep them in position, each of the stop-castings is provided between the stops thereon with spring-guiding projections g^{10}, preferably curved to fit the circle of the springs.

H H are the removable spring-supporting plates at the lower edges of the stop-castings, upon which the followers rest as they reciprocate back and forth. These spring-supporting plates or guides H H are removably secured to the stop-castings by short bolts *h*, the heads of which extend through slotted flanges g^{11} at the ends of the stop-castings at the lower edges thereof, the slots g^{12} extending longitudinally.

The pair of stop-castings G G are connected together and braced at their rear ends by a transversely-extending thimble K and connecting-bolts K′, which engage the vertical depending lugs or flanges g^{13} g^{13} on the stop-castings. This thimble abuts at its ends against

these flanges and acts as a brace, while the connecting-bolt serves as a tie.

I claim—

1. In a tandem-spring draft-rigging for railway-cars, the combination with the draft-sills of a draw-bar, a draw-bar extension, a pocket strap or yoke pivotally connected at its front end with the rear end of the draw-bar extension, tandem springs and followers and a pair of stop-castings having each stops for the followers to abut against, and provided with a horizontal flange fitting under and bolted to the draft-sill, and an upright flange fitting against and bolted to the side of the draft-sill, and furnished each with an inwardly-projecting guide to keep the springs in position, substantially as specified.

2. In a tandem-spring draft-rigging for railway passenger-cars, the combination with the draft-sills, of a draw-bar, a draw-bar extension, a pocket strap or yoke pivotally connected to the draw-bar extension, tandem springs and followers and a pair of stop-castings having each stops for the followers to abut against, and provided each with a horizontal flange fitting under and bolted to the draft-sill, and an upright flange fitting against and bolted to the side of the draft-sill, said stop-castings having each downwardly-projecting vertical flanges and a transversely-extending thimble and connecting-bolt extending between and connecting the stop-castings at the rear end thereof, substantially as specified.

3. In a draft-rigging for railway-cars, the combination with a pair of stop-castings having each a downwardly-projecting vertical flange at the rear end thereof, and a transversely-extending thimble and connecting-bolt extending between and connecting the stop-castings at the rear end thereof, substantially as specified.

4. In a draft-rigging, the combination of stop-castings G G having each a horizontally-projecting flange g^4 and an upright flange g^5, and depending lugs or flanges g^{13}, a transversely-extending thimble K and connecting tie-bolts K′, substantially as specified.

5. In a draft-rigging, the combination of stop-castings G G having each a horizontally-projecting flange g^4 and an upright flange g^5, and depending lugs or flanges g^{13}, a transversely-extending thimble K, connecting tie-bolts K′ and removable spring-plates H H, said stop-castings having slots at the lower edges thereof to receive bolts for securing said spring-plates to the stop-castings, substantially as specified.

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Witnesses:
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