

(No Model.)

I. R. McCORMICK.

CAR BRAKE.

No. 488,695.

Patented Dec. 27, 1892.

Fig. 1.

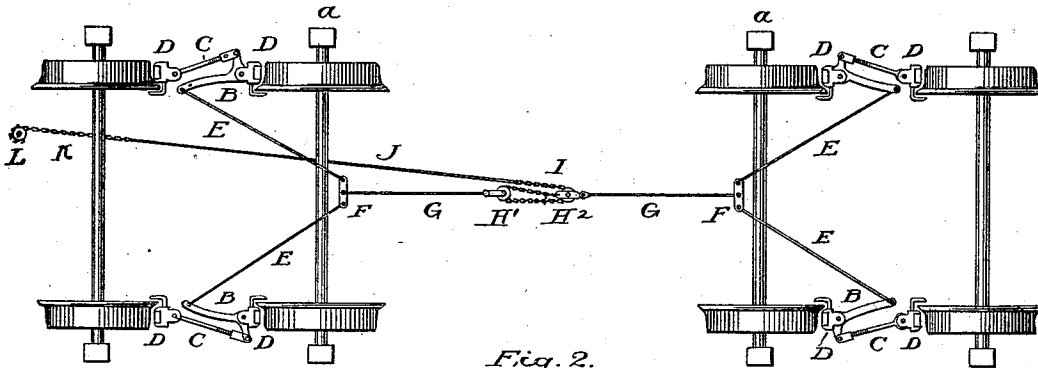


Fig. 2.

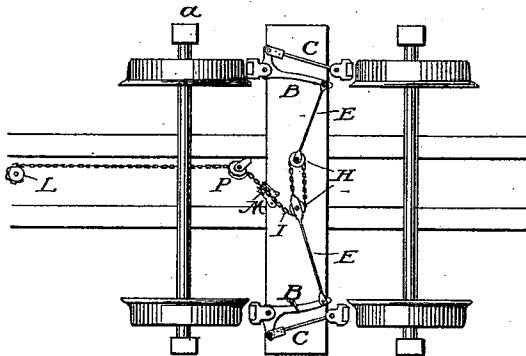


Fig. 5.

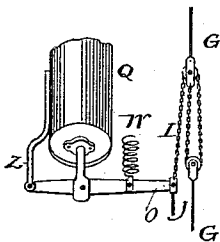


Fig. 4.

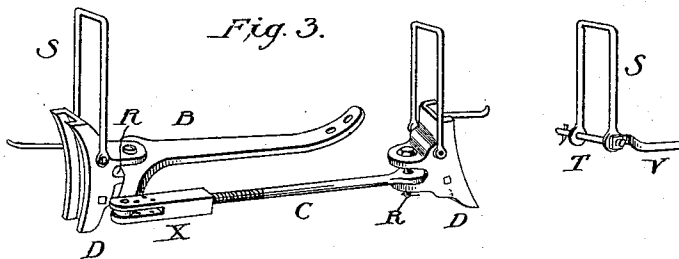


Fig. 3.

Witnesses:
John H. Patrick
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UNITED STATES PATENT OFFICE.

ISAAC ROSS MCCORMICK, OF LOGANSFORT, INDIANA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 488,695, dated December 27, 1892.

Application filed November 30, 1891. Serial No. 413,627. (No model.)

To all whom it may concern:

Be it known that I, ISAAC ROSS MCCORMICK, of Logansport, in the county of Cass and State of Indiana, have invented certain new and useful Improvements in Beamless Car-Brakes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

The object of my invention is to dispense with brake beam now in use, and otherwise to simplify and reduce the amount of material used in the construction of same.

Figure 1 of the drawings is a representation of a bottom view of car-truck showing my device as applied to both trucks and the connection to brake staff as used for hand brake. Fig. 2 is a representation of same device applied as a single brake or on but one truck of car. Fig. 3 is a representation of brakes disconnected from trucks showing construction of same. Fig. 4 is a representation of hanger constructed in such a manner that the extended arm (V) at bottom acts as a guard to hold the brakes in position. Fig. 5 is a representation of air brake connection.

In Fig. 1 (B B) are levers bent in such a shape so as to form a heel at the fulcrum at which place it is attached direct to the brake head or shoe the short arm extending outward coupling between the jaws of spreading bars (C C) by means of key bolts. The ends of spreading bars (C C) extend to and are coupled to opposite brake head (D) as shown at (R) in Fig. 3. The long arm of levers (B. B.) are curved so as to connect with rods (E. E.), rods (E. E.) being attached at each end of equalizer (F) which is attached at its center with connecting rods (G), which contains pulleys (H. H.). Chain (I) is secured to end of jaw which extends past pulley (H') passes around pulley (H²) thence back and around (H') and connects with rod (J) and levers (O.) as shown in Fig. 5. Rods (J) extend to chain (K.) which is secured to brake staff (L.). Therefore by turning the brake wheel or applying the air, draws the connecting rods (G G) together the same being connected at the centers of equalizers (F. F.) thus dividing the powers equally between the four levers (B. B. B. B.) drawing them inward forcing the brake shoes (D. D.) against the wheels.

Fig. 2. is the same as onehalf of Fig. 1 except that rod (G.) extends to the opposite end of car and is connected to brake staff (L) by chain (K) the same as rod (J) in Fig. 1.

In Fig. 3 (B) is a lever bent in such a shape as to form a heel at the fulcrum with hole for receiving key bolt when attached to brake head or shoe (D.) the short arm extending to and coupling between jaws of spreading bar (C) which is attached at other end to opposite brake head (D) as shown at (R). Spreading bar (C) is provided with a round flattened head slightly curved or bent to prevent binding in the jaws; the other end is provided with threads which screw into end of the fork (x.) by which it can be adjusted to any desired length. The jaws of fork (x.) are provided with numerous holes by which the levers (B) can be placed at different angles with the spreading bar (C).

In Fig. 4 guard arm (V) extends in side of the wheel to prevent the brakes shoes or head (D) from slipping outward, off of wheel as shown in Fig. 1. There is also a square hole in brake head (D) as shown in Fig. 3 to receive the guard pin in case the one on the hanger should break or where the brakes are used on old style hangers.

In Fig. 5 lever (O.) is coupled at its fulcrum to the piston rod of air cylinder its short arm being connected with end of support (Z) and its long arm with chain (I) and rod (J). (W.) shows position of releasing spring.

What I do claim as my invention and desire to secure by Letters Patent is

1. The levers B. B. placed as described in combination with spreading bar (C) and brake heads (D) all constructed and operated substantially as set forth.

2. The equalizer (F) in combination with rods (G. G.) and pulleys (H. H) and chain (I) and connected with levers (B. B.) by rods (E. E.) as and for the purpose substantially as set forth.

3. The hanger (S) provided with guard arm (V) as shown and substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ISAAC ROSS MCCORMICK.

Witnesses:

JOHN H. PATRICK,
FRANCIS M. HAMAN.