2 Sheets—Sheet 1.

C. D. CULVER.

RAILWAY CAR BRAKE.

No. 85,369. Patented Dec. 29, 1868.

Fig: 1.

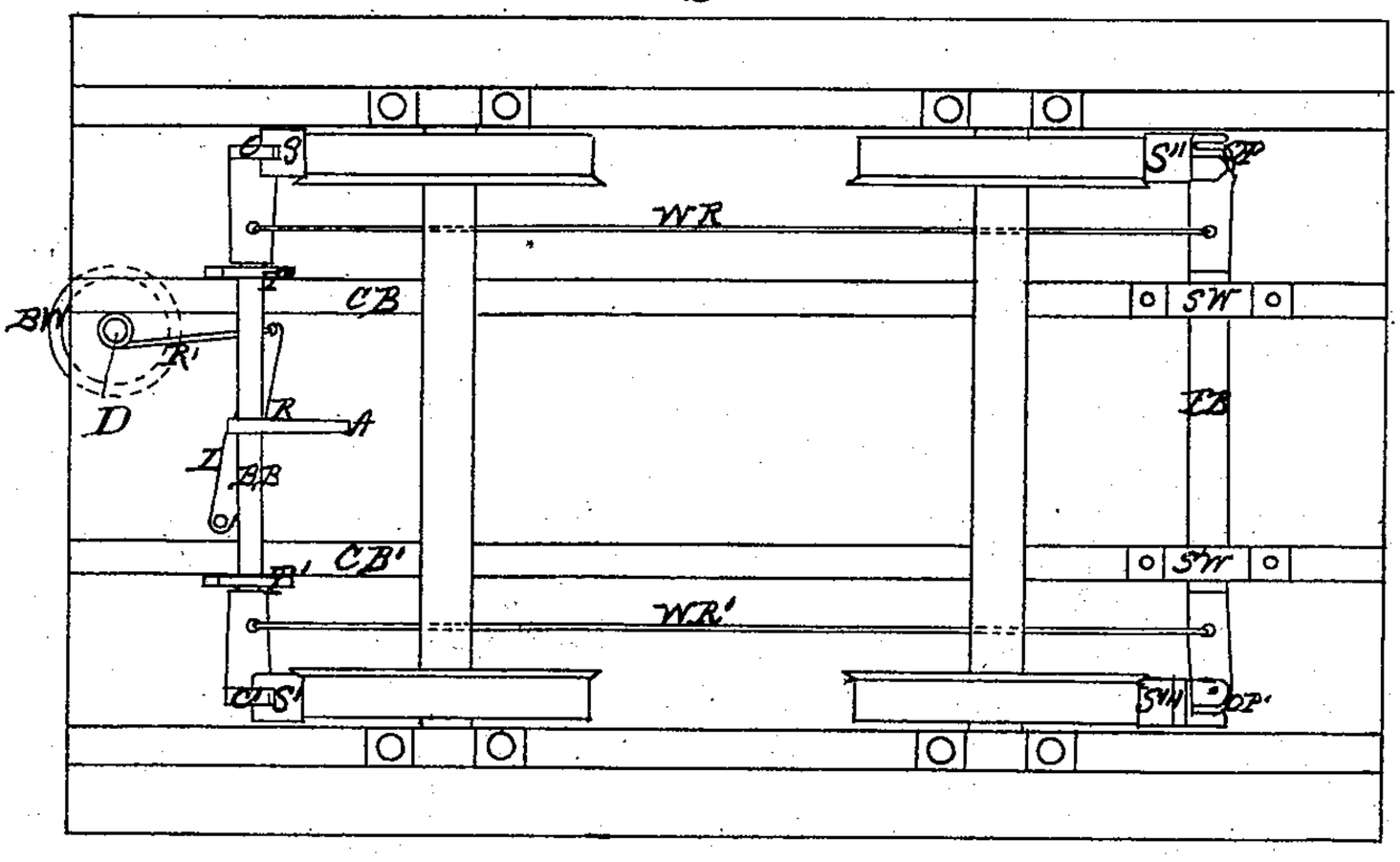


Fig: 2.

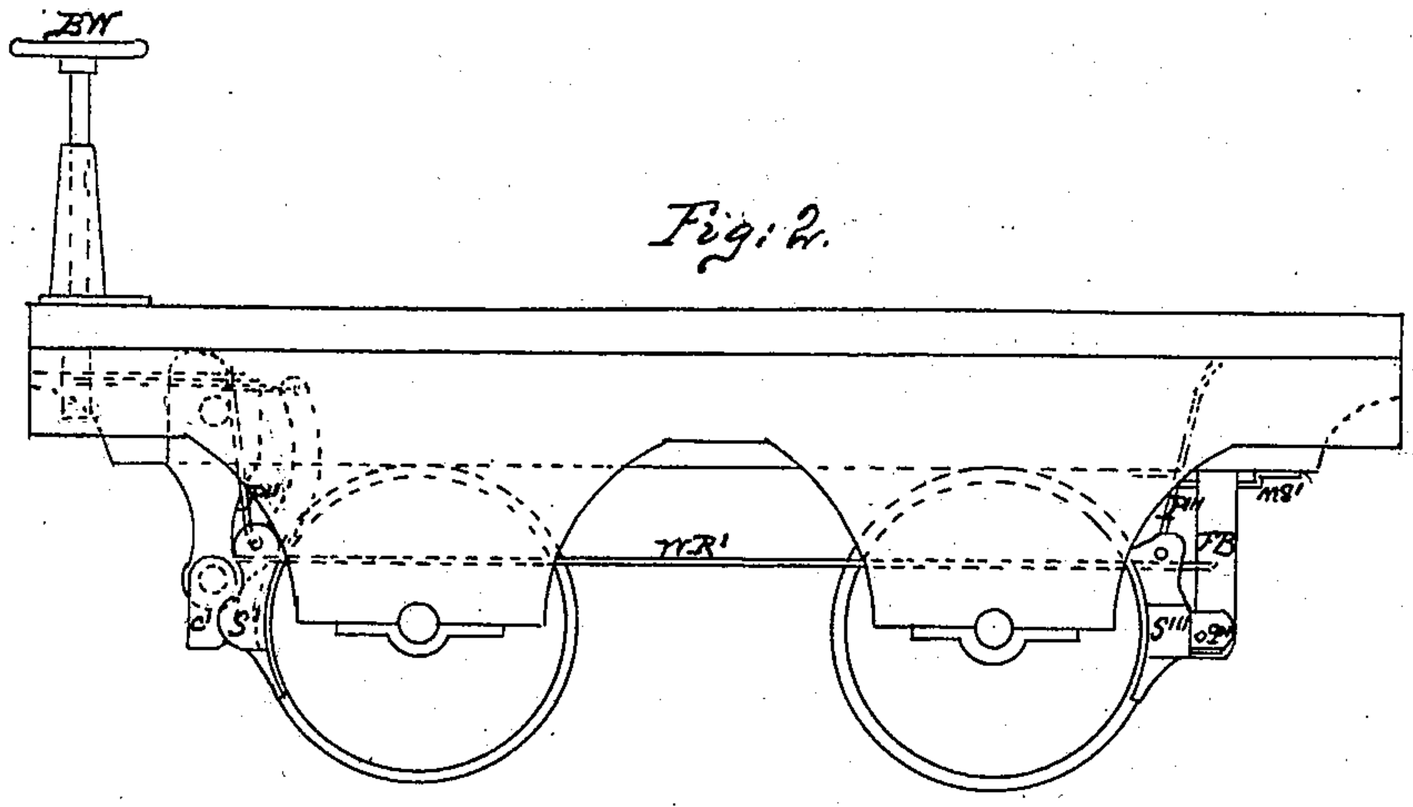
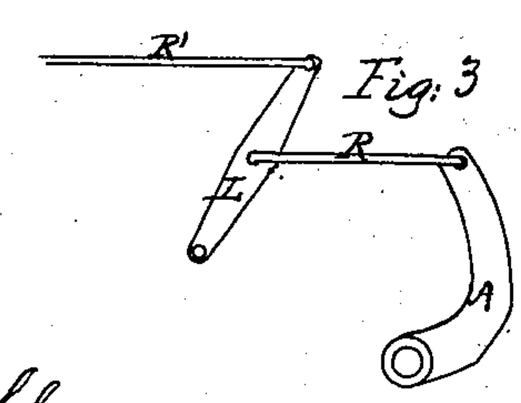


Fig: 3



Witnesses.

Isaac R Oakford
Henry Rollig.

Inventor.

Charles D Culver
per C H Evans
Atty

2 Sheets—Sheet 2.

C. D. CULVER.

RAILWAY CAR BRAKE.

No. 85,369. Patented Dec. 29, 1868.

Fig: 4.

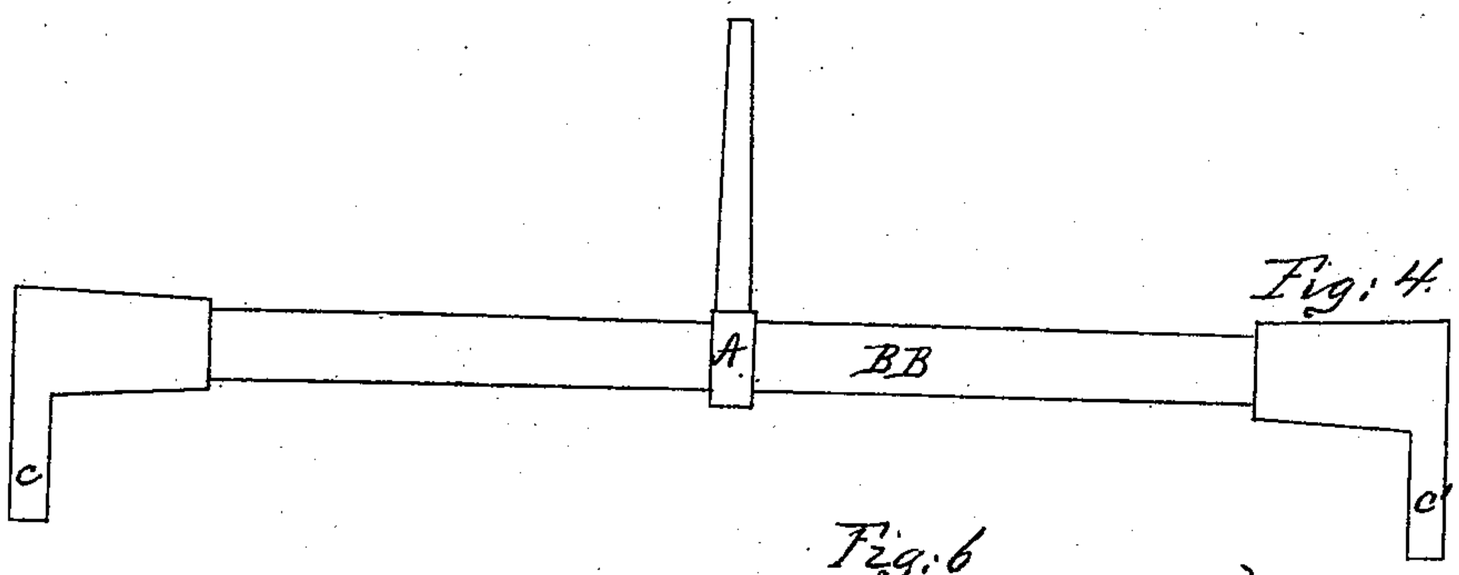


Fig: 5

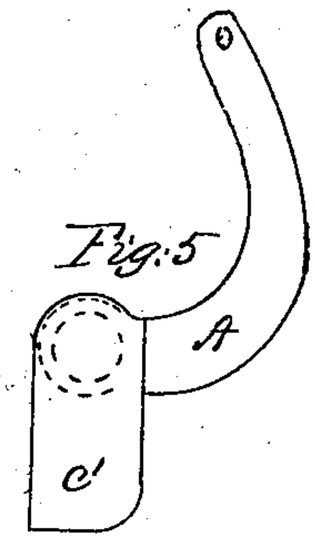


Fig: 6

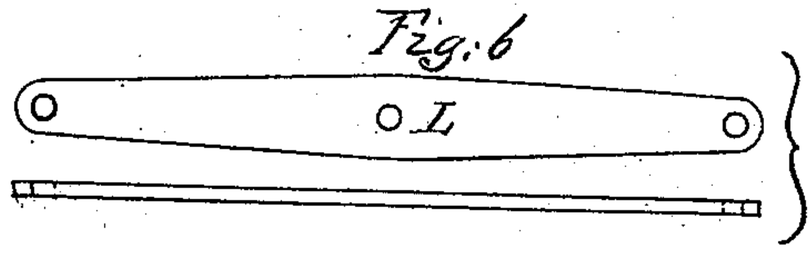


Fig: 7

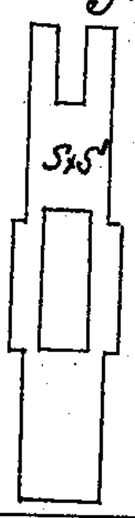
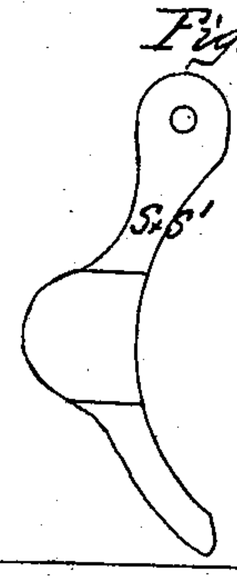


Fig: 8



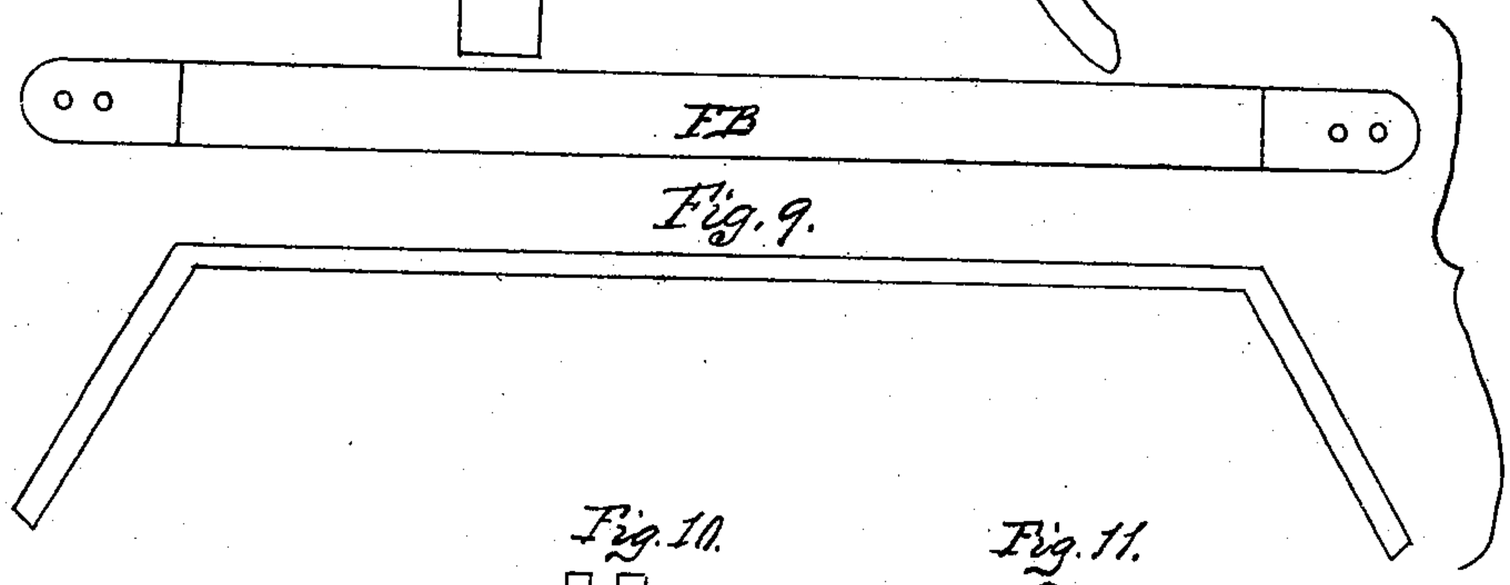


Fig. 9.

Fig. 10.

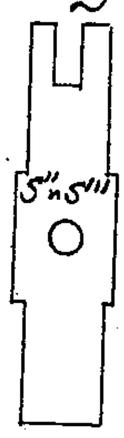


Fig. 11.

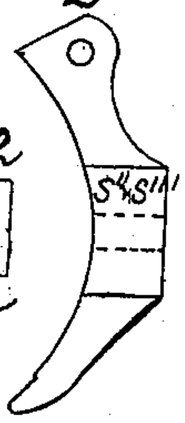
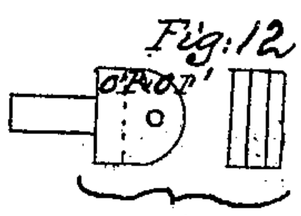


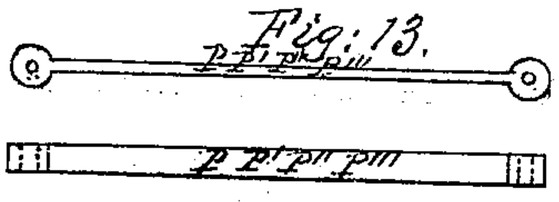
Fig: 12



Witnesses

Isaac R Oakford -
Henry Coelig.

Fig: 13.



Inventor

Charles D Culver
Geo. H. Evans
atty

United States Patent Office.

CHARLES D. CULVER, OF MAUCH CHUNK, PENNSYLVANIA.

Letters Patent No. 85,369, *dated December* 29, 1868.

IMPROVED RAILWAY-CAR BRAKE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES D. CULVER, of Mauch Chunk, county of Carbon, and State of Pennsylvania, have invented a new and useful Improvement in "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 accompanying drawings, making a part of this specification, in which—

Figure 1, plate 1, is a bottom plan of a railroad-truck, showing my car-brake applied.

Figure 2, plate 1, is a side view of same.

Figure 3, plate 1, is a view of the arm and lever of the brake-beam.

Figures 4 to 13, plate 2, are views of the brake in detail.

The nature of my invention consists in providing a car-brake that will combine simplicity of construction and greatly increased power at the command of the brakeman, over the ordinary style of brakes, also diminished liability to accidents from obstructions between the rails, owing to the brake-beam being raised above the axles of the car.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

On the end of the car, and secured to the outer sides of the two centre beams, C B and C B′, are two journals, T and T′, placed above the centre of the axle of the car.

Passing through said journals is a revolving brake-beam, B B, having an arm, A, fastened in the centre, as shown in figs. 4 and 5.

The end of arm A is connected to the centre of lever L by means of a rod or wire rope, R.

One end of the lever L works on a pivot secured to the bottom of the platform, the opposite end being connected, by means of a wire rope or chain, R′, to the stem or drum D of the brake-wheel B W.

The ends of the brake-beam B B, on the outer side of the journals T and T′, are made larger in diameter, and have on it two short arms, C and C′, which work in sockets or openings in the brake-shoes S and S′.

On the opposite end of the car, to which brake-beam B B is applied, is a flat bar, F B, fig. 9, said bar being turned down on the ends, in order to bring them opposite to the face of the wheels.

Bar F B is retained in proper position by metallic straps, M S and M S′, secured to the lower edge of the beams C B and C B′.

The ends of bar F B, which turn down, work in open jaw-pieces O P and O P′, fig. 12, which are fastened to the back of the brake-shoes S″ and S‴

Brake-beam B B and flat bar F B are connected by means of wire rope, iron rods, or chains W R and W R′, placed on the inner side of the car-wheel.

It is well to state that the part of W R and W R′ which is fastened to brake-beam B B should be made flexible to insure its winding around said beam.

Suspended from the bottom of the platform, and opposite to each brake-shoe, are springs P, P′, P″, and P‴, for the purpose of keeping the shoes clear from the wheels when the brake is slack.

In the above description, I have stated that the arm A is placed in the centre of the brake-beam B B; also, that the arm A is connected to the centre of the lever L; but I do not wish to limit myself to these precise points, as it may be necessary to place them off from the centre, in order to increase or diminish the power.

Operation.

Upon turning the brake-wheel B W, the stem or drum D winds around it the rope or chain R′, which draws on the lever L, and pulls on rope or chain R, connected to the arm A. The brake-beam B B now revolves and presses the shoes S and S′ against the face of the wheels. This movement simultaneously winds on the ends of B B the rope or chain-end of W R and W R′, and draws towards B B the bar F B, which presses the shoes S″ and S‴ against the wheel.

Having thus described my invention, its construction and operation,

What I claim, and desire to secure by Letters Patent of the United States, is—

1. The combination of the arm A, revolving brake-beam B B, cams C and C′, chains or wire ropes W R and W R′, connecting with a second pair of brakes on the flat bar F B, substantially as specified.

2. In combination with the above, the lever L and stem or drum D of the brake-wheel, to arm A on the brake-beam B B, all arranged and operating as and for the purpose set forth.

C. D. CULVER.

Witnesses;

SAM'L PATTERSON,

JOHN S. SANSON.