

No. 713,783.

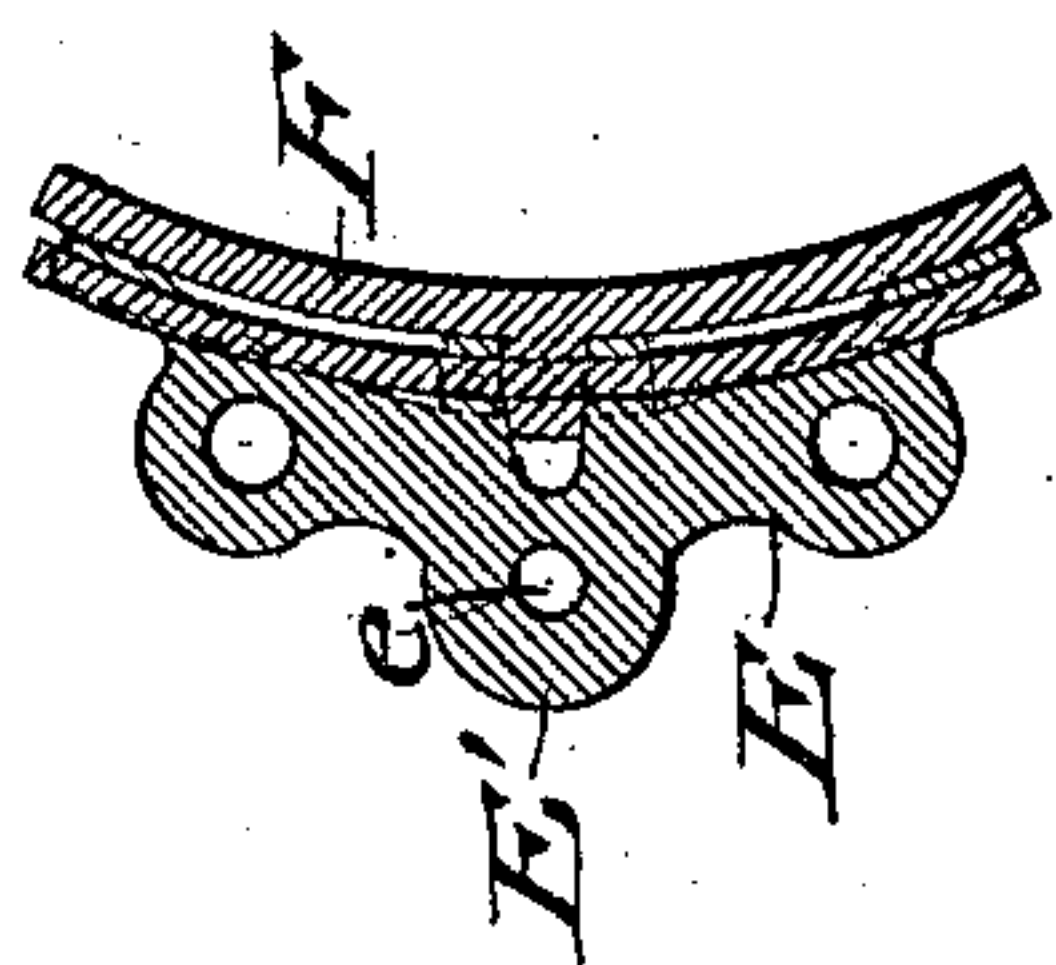
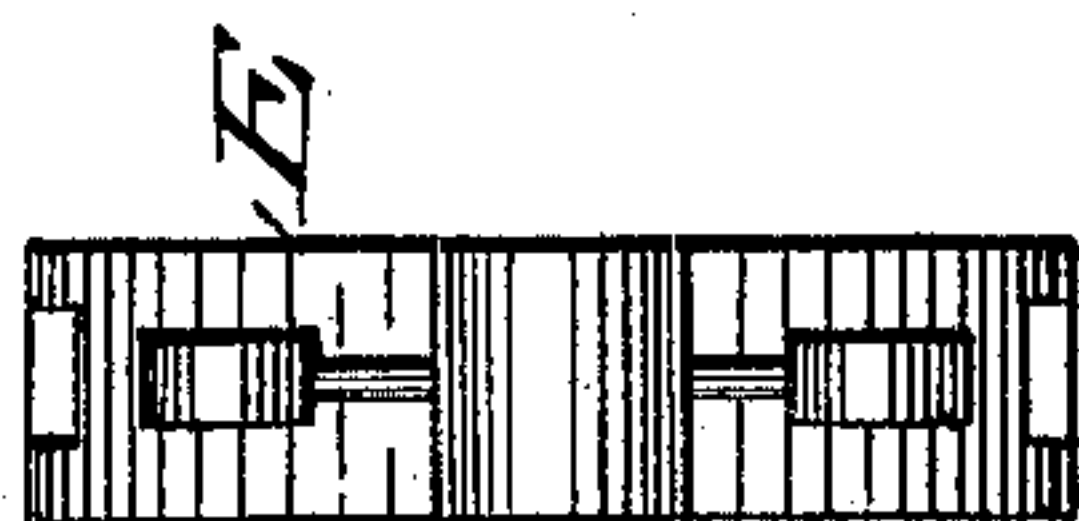
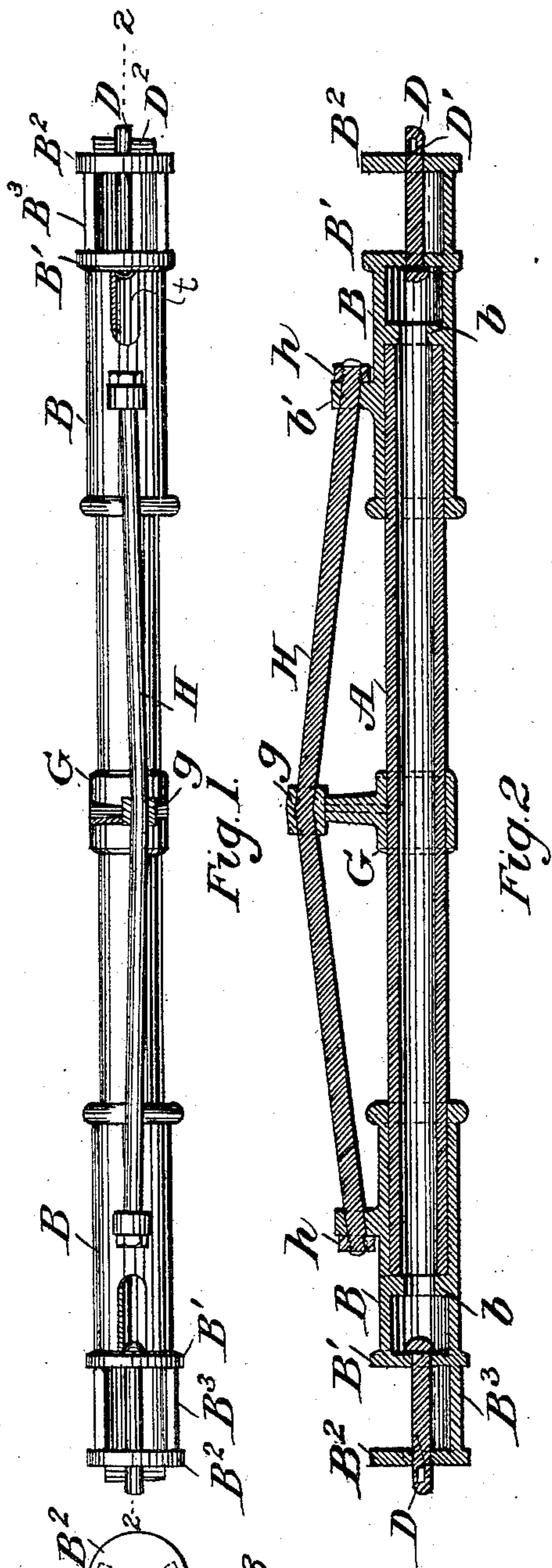
Patented Nov. 18, 1902.

C. V. MARQUART.

BRAKE BEAM.

(Application filed July 30, 1902.)

(No Model.)



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES V. MARQUART, OF SANDUSKY, OHIO.

BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 713,783, dated November 18, 1902.

Application filed July 30, 1902. Serial No. 117,631. (No model.)

To all whom it may concern:

Be it known that I, CHARLES V. MARQUART, a citizen of the United States, residing at Sandusky, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Brake-Beams; and I do hereby 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.

This invention relates to brake-beams and the devices attached thereto; and it consists in the construction and combination of parts hereinafter more particularly set forth and claimed.

Figure 1 represents a side elevation of a brake-beam and detached parts embodying my invention, but without the brakes, the view being taken from the side which the brakes would occupy. Fig. 2 represents a longitudinal section through the same on the line 2 2 of Fig. 1. Fig. 3 represents an end view of one of the sleeves or ferrules. Fig. 4 represents a vertical sectional view of one of the brakes from one side. Fig. 5 represents a detail front elevation of the face of the brake-head to which the brake-shoe is to be attached.

A designates a tubular brake-beam. B designates two sleeves or ferrules fitted upon the ends thereof, each of said ferrules being provided with an internal annular shoulder *b*, fitting against the proximate end of the said beam, also with a terminal brake-shoe cup consisting of two parallel disks or cheeks *B'* and *B''* and a trough-shaped connecting-piece *B'''*, also with an external lug *b'*, having a central hole. All these parts of the ferrule or sleeve are integral therewith. The disks or cheeks *B'* *B''* are centrally perforated, as shown at *d*, Fig. 3, in one of them for the reception of a pin *D*, which passes through a hole *e* in a lobe *E'* of the brake-head *E*, to which the brake-shoe *F* is attached. The open sides of the cups aforesaid are of course presented toward the wheels, so that the brake-shoes may bear against the peripheries of the latter. Each pin *D* has a slot *D'* through its end to receive a transverse key or wedge *D''* for holding said pin in place.

On the middle part of the bar *A* is sleeved a stud or short arm *G*, which extends in the

same direction as the brake-shoes and has in its end away from said beam an eye *g*, the bore of which is slightly curved to receive the middle part of a bent truss or brace-rod *H*, the ends of which pass through holes in the lugs *b'* aforesaid and are screw-threaded to receive nuts *h* for fastening the brake rod and beam tightly together. By tightening or loosening these nuts expansion and contraction due to changes of temperature may be compensated for. They also provide for easy separation of all the parts when desired.

All the parts above described are of strong malleable metal. In putting them together the stud is first slipped on the beam to the middle thereof, the sleeves or ferrules are then driven on the ends of the said beam, the brace-bar is passed through the eye of the stud, the ends of the said brace-bar are passed through the lugs on the sleeves, the nuts are turned home, the brake-heads with the shoes attached are introduced into the cups with their perforated lobes in position to receive the pins, the pins are passed through said disks and lobes, and the wedges are passed transversely through the said slots in the said disks. The reverse procedure is followed in taking apart the brake-beam and attachments.

The brake-heads are free to turn on the pins, thereby allowing the shoes to adjust themselves to the wheels and preserve a perfect fit, while keeping the wear even.

A brake-beam and attachments of the above construction are cheaply made, durable, capable of resisting great strain, and very easily cleaned or repaired. The sleeve having an external perforated lug, an internal annular shoulder, and a terminal brake-cup, all integral, is a particularly strong, simple, and useful feature combined as stated. The beam *A* may be slightly arched, if preferred, instead of straight, as shown.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with a brake-beam, a stud sleeved thereon and provided at its farther end with an eye, a brace-rod having its middle part in said eye and a pair of sleeves each provided with means for holding a brake head and shoe and also having an internal

shoulder distinct from the end of the sleeve and fitting against the end of said beam and an external perforated lug, the ends of the said brace-bar being passed through the said
5 lugs and secured there for the purpose set forth.

2. In combination with a brake-beam a pair of ferrules fitted on its ends, each having integral with it an external perforated lug an
10 internal annular shoulder fitting against the end of the said beam and a terminal brake-holding cup consisting of a pair of perforated disks or cheeks and a connecting part, a brace-rod fastened to said lug at its ends and hav-
15 ing its middle part in the eye of the said stud, brake-heads having perforated parts set into the said cups and pins passing through the

said disks and perforated parts to attach the brake-heads to the cups substantially as set forth.

3. A tubular sleeve or ferrule adapted to fit on the end of a brake-beam and provided with an internal annular shoulder, an external perforated lug, and a terminal cup consisting of a pair of perforated disks and a
25 trough-shaped connecting-piece, all of the said parts being integral substantially as set forth.

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

CHARLES V. MARQUART.

Witnesses:

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