

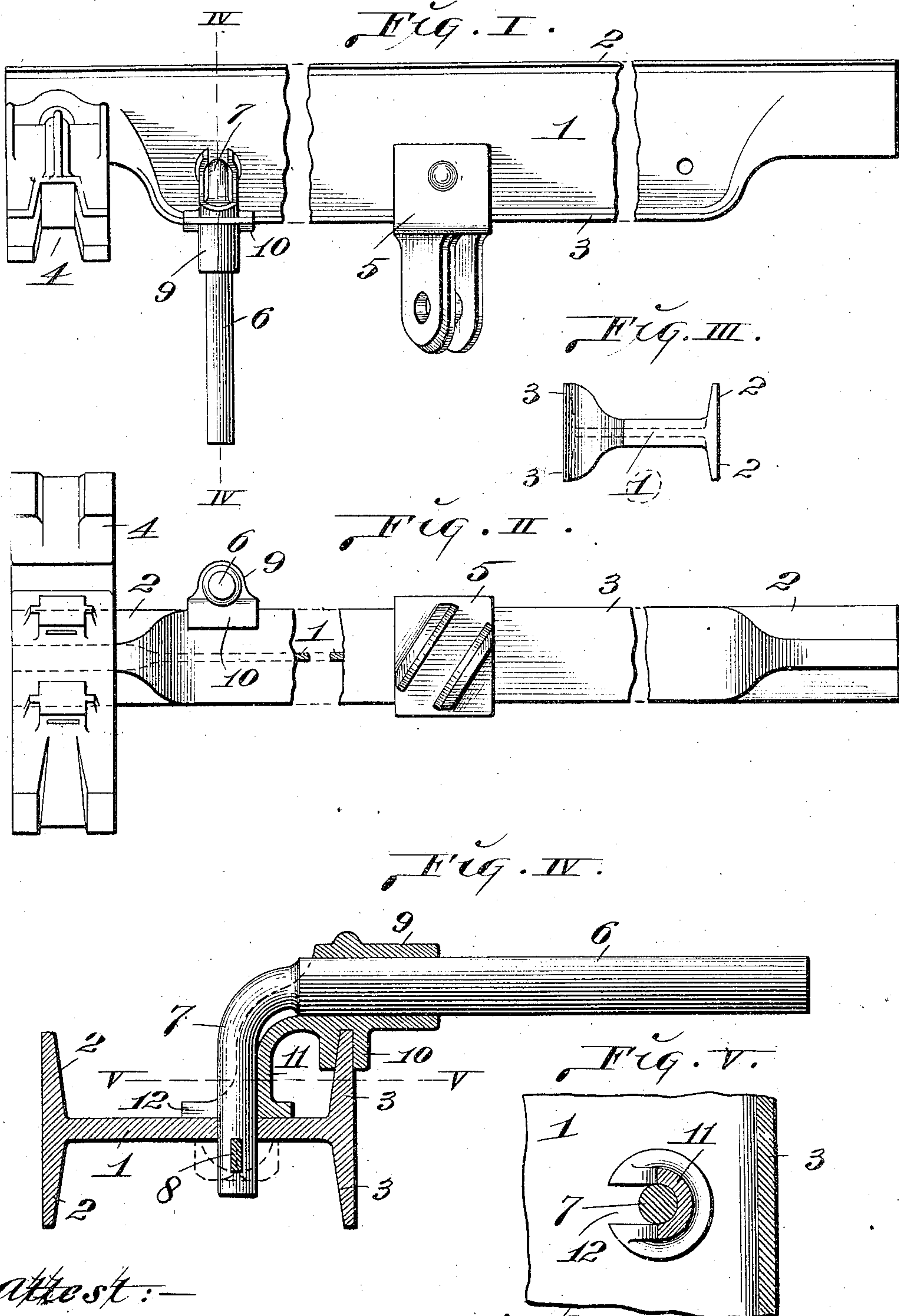
No. 754,785.

PATENTED MAR. 15, 1904.

A. LIPSCHUTZ.
BRAKE BEAM.

APPLICATION FILED SEPT. 24, 1903.

NO MODEL.



Attest:-
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UNITED STATES PATENT OFFICE.

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BRAKE-BEAM.

SPECIFICATION forming part of Letters Patent No. 754,785, dated March 15, 1904.

Application filed September 24, 1903. Serial No. 174,396. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR LIPSCHUTZ, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Brake-Beams, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a brake-beam of flanged form having its end portions upset and the ends of the flanges compressed to the web of the beam to provide for the reception of the brake-heads while retaining the utility of the flanges throughout the central portion of the beam. The invention further relates to a novel construction of finger-guard used in connection with the beam.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a top or plan view of my beam, partly broken out. Fig. II is a rear elevation of the beam, partly broken out. Fig. III is an end view of the beam with the brake-heads omitted. Fig. IV is a cross-section taken through the beam at the location of the finger-guard thereon on line IV IV, Fig. I. Fig. V is a horizontal section taken on line V V, Fig. IV.

My beam is preferably made from a body of I form, though it may partake of any other shape in cross-section, such as a T. The construction shown in the drawings is of I form, and the beam has a web 1, forward side flanges 2, and rear side flanges 3. At each end of the beam portions of the rear flanges 3 are upset and the flanges are bent over onto the web 1, from which they project, and the end portions of the beam are compressed toward the forward edge of the beam, so as to produce a thickened web as a result of the upsetting and bending of the rear flanges and the compression of the end portions of the beam. These end portions receive the brake-heads 4, which are secured to the beam in any suitable manner, such as by bolting them thereto.

5 designates a brake-lever fulcrum mounted

centrally upon the brake-beam at the usual location.

6 designates a finger-guard that projects outwardly from the rear of the beam 1 and is furnished with an arm 7, which passes through the web 1 of the beam and is secured thereto by a key 8, as seen in Fig. IV. In lieu of said key a nut may be applied to the arm of the finger-guard, as shown by dotted lines. For the purpose of holding the finger-guard properly positioned with relation to the brake-beam—that is, at right angles thereto—I utilize a clip fitted to the finger-guard and having engagement with the upper rear flange of the beam. This clip has a sleeve 9, encircling the finger-guard, and a socket 10, that is fitted to the upper rear flange 3 of the beam to thereby hold the clip from movement on the finger-guard and prevent lateral movement of said finger-guard. 11 is a curved leg projecting from the clip-sleeve 9 downwardly to the web 1 of the brake-beam at the rear of the finger-arm 7. This curved leg is formed into a fork 12 at its termination, and said fork is fitted to the finger-guard arm 7 to thereby cause the leg 8 to serve as a brace for the clip-sleeve 9. The leg 11 also serves to receive the brake safety-chain which is secured thereto.

The important feature in my brake-beam construction is the reduction of the width of the ends of the beam without weakening effect and to furnish a form of beam end to which the brake-head may be applied in the most secure manner and without making the head of a weak form. Brake-beams that are made for use between pairs of truck-wheels of a railway-car must necessarily be narrow enough, particularly at their ends, to operate without interference with each other, owing to the limited space between the two sets of truck-wheels in connection with which the two brake-beams, with their heads, are used. In view of what is stated in the foregoing I compress my beam at the ends to narrow it, and in order to attain the full strength of the beam at the compressed portions I compress the flanges of the beam onto the web of the beam, and thereby thicken the ends of the

beam in a degree corresponding to the thickness of the compressed flanges. By so compressing the flanges onto the web of the beam instead of merely compressing the beam's
5 ends and permitting the flanges to remain uncompressed, but merely offset from the remainder of the flanges throughout the body of the beam, I furnish a broad bearing for the brake-head. As a consequence of this
10 broad bearing ample space for the bolt and rivet holes through the thickened ends of the beam is provided, so that there may not be the least difficulty in maintaining the heads on the beam ends. Moreover, full body in the
15 brake-head without any weak points is rendered possible, owing to the flat form of the beam ends, instead of incurring weakness in the brake-heads where made of a form that will fit to the flanges of a beam over which
20 the head must be fitted.

I claim as my invention—

1. As a new article of manufacture, a brake-beam of flanged form having portions of the flanges at its ends upset onto the web of the
25 beam, substantially as set forth.

2. As a new article of manufacture, a brake-beam of flanged form having portions of the flanges at its ends upset onto the web of the

beam thereby furnishing ends of T shape, substantially as set forth. 30

3. A brake-beam of flanged form having portions of its flanges at the ends thereof upset onto the web of the beam, and having said ends compressed to thicken the brake-head-receiving parts of the beam, substantially as
35 set forth.

4. The combination with a brake-beam of flanged form, of a finger-guard having an arm passing through the web of said beam, and a clip for securing said finger-guard to the beam; 40 said clip comprising a sleeve fitted to the finger-guard, a socket projecting from said sleeve to engage one of the flanges of the beam, and a leg extending from said sleeve and having a forked end fitted to the arm of said finger- 45 guard, substantially as set forth.

5. The combination with a brake-beam of flanged form, of a finger-guard having an arm passing through the web of said beam, and a clip for securing said finger-guard to the beam, 50 substantially as set forth.

ARTHUR LIPSCHUTZ.

In presence of—

NELLIE V. ALEXANDER

E. S. KNIGHT.