No. 678,380. Patented July 16, 1901.

N. H. DAVIS.

TRUSS.

(Application filed Aug. 11, 1900.)

(No Model.)

FIG. 1.

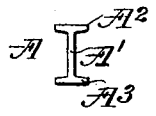


FIG. 2.

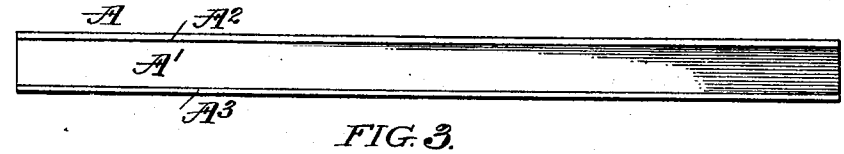


FIG. 3.

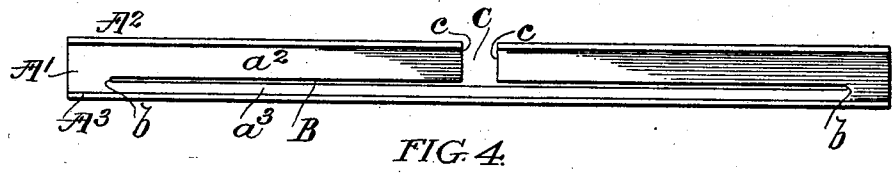


FIG. 4.

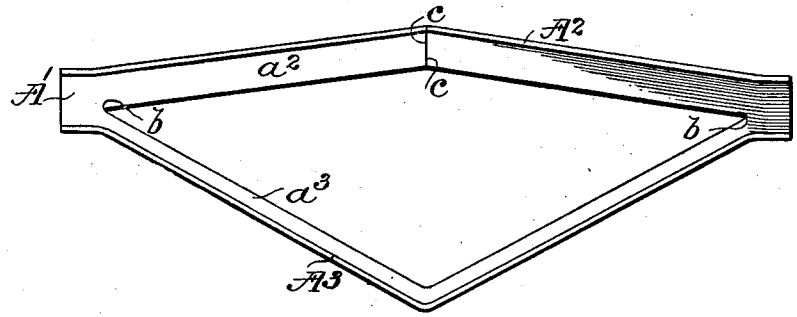


FIG. 6.

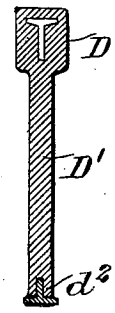
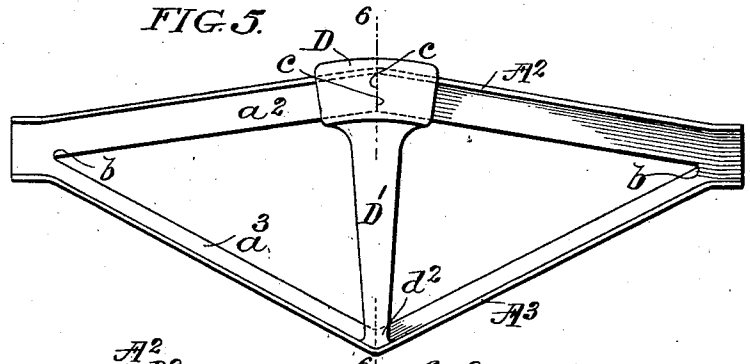


FIG. 5.



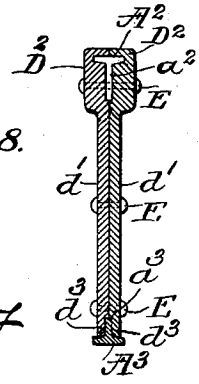


FIG. 8.

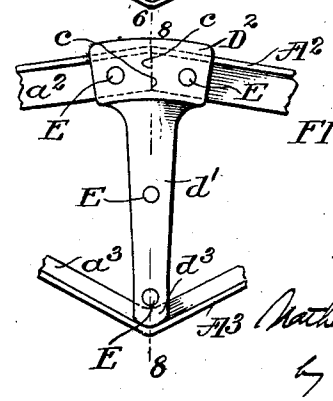


FIG. 7.

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TRUSS.

SPECIFICATION forming part of Letters Patent No. 678,380, dated July 16, 1901.

Application filed August 11, 1900. Serial No. 26,618. (No model.)

To all whom it may concern:

Be it known that I, NATHAN H. DAVIS, a citizen of the United States of America, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful Improvement in Trusses, of which the following is a true and exact description, reference being had to the accompanying drawings, which form a part thereof.

My invention relates to the construction of trusses, and is especially intended for the manufacture of trusses adapted for use as brake-beams or car-bolsters, though of course it is also adapted for other uses.

The object of my invention is to provide a truss of great simplicity of construction and one having very few detachable parts. In my former patent, No. 574,887, of January 12, 1897, I have shown and described a truss made from an iron beam longitudinally slit intermediate its ends and then spread into truss form by upsetting one of the divided portions in order to shorten it and at the same time drawing away the other divided portion, the two portions thus spread apart being stayed in position by a strut.

My present invention consists in a truss which, like my patented truss, is made from a beam longitudinally slit in the same manner, but in which in place of upsetting one of the divided portions in order to shorten it relatively to the other I cut away an intermediate portion of said truss member, bringing the severed ends of this portion together or nearly together, when the other divided portion is spread away from it, and securing said divided ends together by means of a metal head, preferably cast upon and inclosing said ends, the strut separating the two spread portions of the beam preferably extending from this head to the other separated and spread portion of the truss.

Reference being now had to the drawings which illustrate my invention, Figure 1 is an end view of an I-beam such as I prefer to employ; Fig. 2, a side elevation of such a beam; Fig. 3, a side elevation of the beam longitudinally slit and having a section of one divided portion cut away. Fig. 4 is a side elevation showing the beam bent into the shape of the truss which it is to form. Fig. 5 is a side elevation of the truss completed, with a head formed around the severed portions by casting. Fig. 6 is a cross-sectional view of the truss on the line 6 6 of Fig. 5. Fig. 7 is a side elevation of the central portion of a truss having the severed ends of the one member connected by a head clamped in position, and Fig. 8 is a cross-section of the truss on the line 8 8 of Fig. 7.

A indicates the I-beam from which the truss is preferably made, said bar having a web A′ and upper and lower flanges A^2 and A^3.

B indicates the longitudinal slit intermediate the ends of the beam and extending from the points *b b*, by which it is centrally separated into two divisions, (indicated at a^2 and a^3.)

C indicates where a portion of the section a^3 is cut away in order to shorten it, leaving the severed ends *c c*, which when the beam is bent into truss shape are preferably abutted, as indicated in Figs. 4, 5, and 7.

D, Figs. 5 and 6, indicates a metal head cast around the ends *c c* of the member a^2, such a head firmly securing them together and in position.

D′ indicates a strut extending from said head and connecting with the section a^3, as indicated at d^2.

D^2 D^2 indicate separable head portions adapted to be clamped about the severed ends *c c*, as indicated in Figs. 7 and 8, *d′ d′* indicating strut extensions from these head-sections connecting with the spread members a^3, as shown at d^3.

E E indicate bolts or rivets securing the heads and struts together.

It will be obvious that my new truss has substantially the strength and simplicity of construction of my former patented invention and especially that it is made up of the fewest number of separable parts and all parts which are not likely to become separated in use.

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

1. A truss formed of a beam of metal slit longitudinally intermediate its ends and having a section of one of its divided portions cut away said divided portions being spread apart and the ends of the severed one brought closer together, in combination with a head

inclosing and securing the ends of the divided portion together and a strut interposed between the spread portions.

2. A truss formed of a beam of metal slit longitudinally intermediate its ends and having a section of one of its divided portions cut away said divided portions being spread apart and the ends of the severed one brought closer together, in combination with a head inclosing and securing the ends of the divided portion together and a strut extending from said head to the other spread member of the truss.

3. A truss formed of a beam of metal slit longitudinally intermediate its ends and having a section of one of its divided portions cut away said divided portions being spread apart and the ends of the severed one brought closer together, in combination with an integral cast-metal head inclosing and securing the ends of the divided portion together and a strut interposed between the spread portions.

4. A truss formed of an I-beam of metal slit longitudinally intermediate its ends and having a section of one of its divided portions cut away said divided portions being spread apart and the ends of the severed one brought closer together, in combination with a head inclosing and securing the ends of the divided portion together and a strut interposed between the spread portions.

NATHAN H. DAVIS.

Witnesses:
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D. STEWART.