

(No Model.)

H. M. STODDARD.

SPRING WAGON.

No. 374,278.

Patented Dec. 6, 1887.

FIG. 1

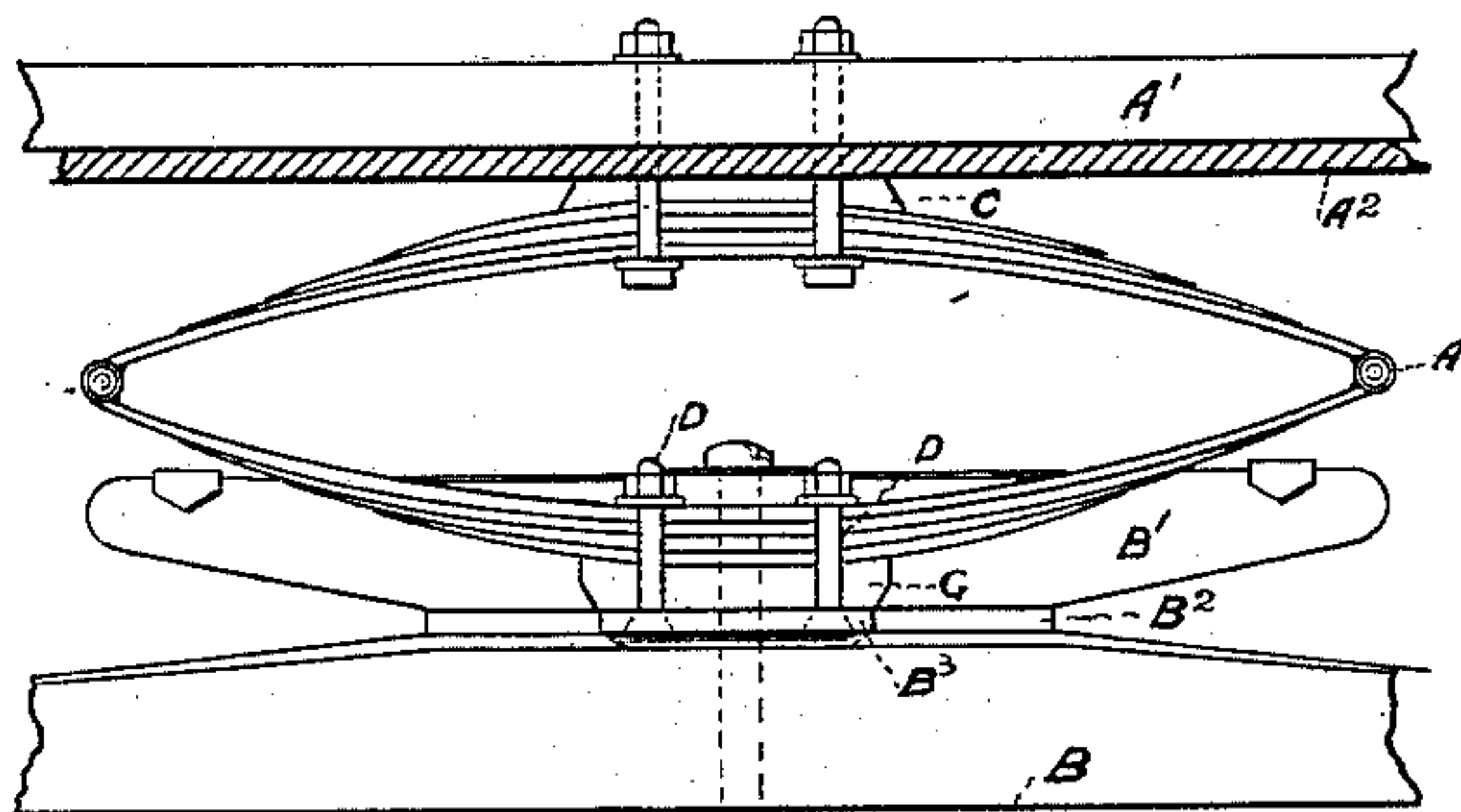


FIG. 2

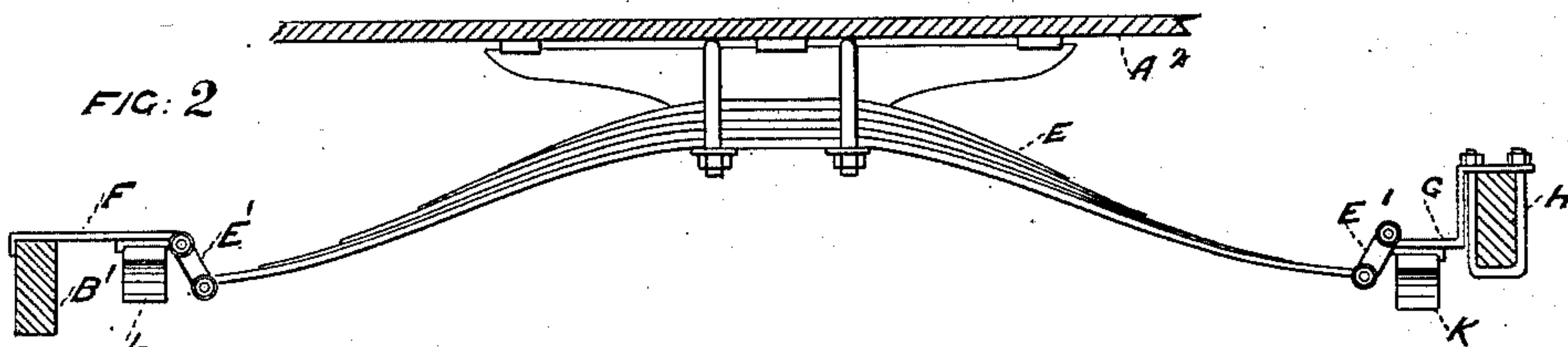


FIG. 3

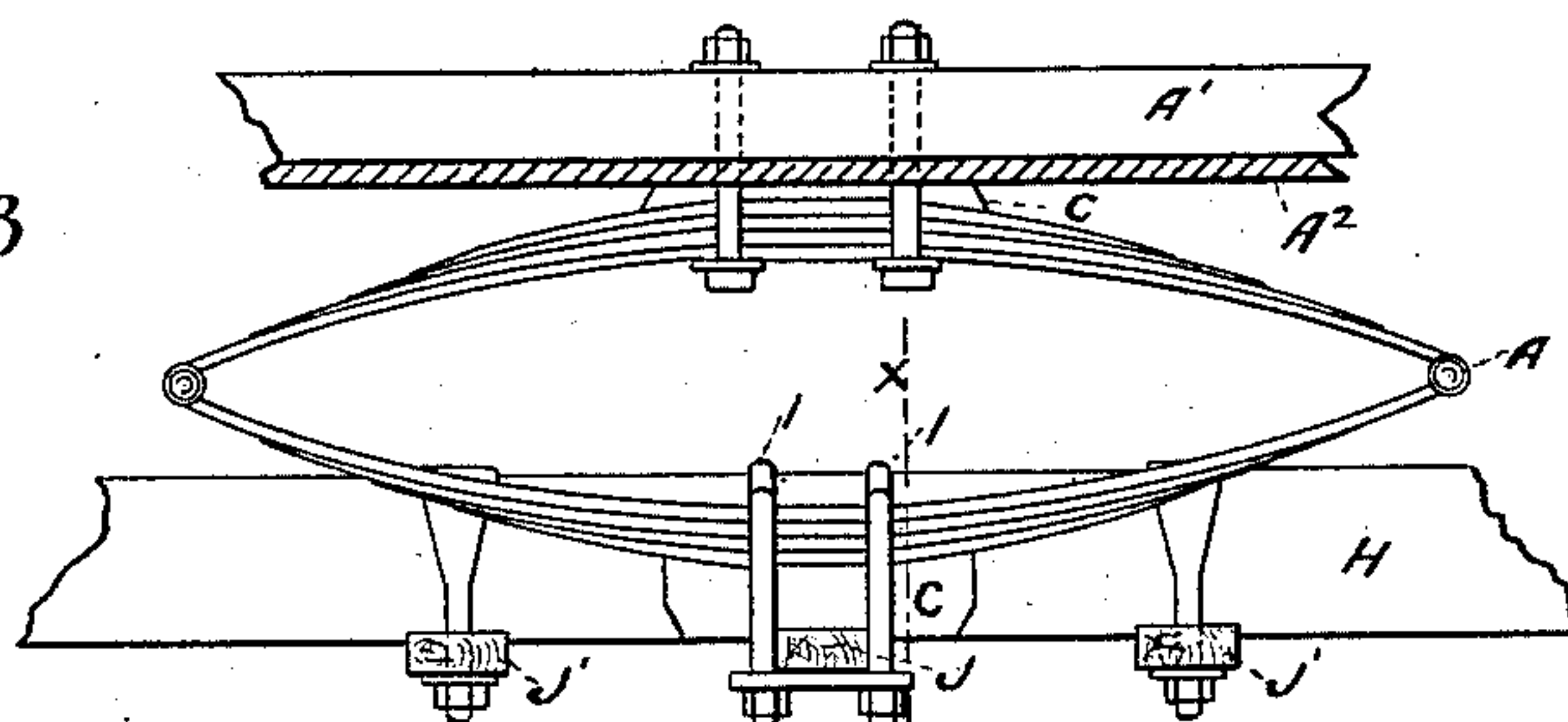


FIG. 4

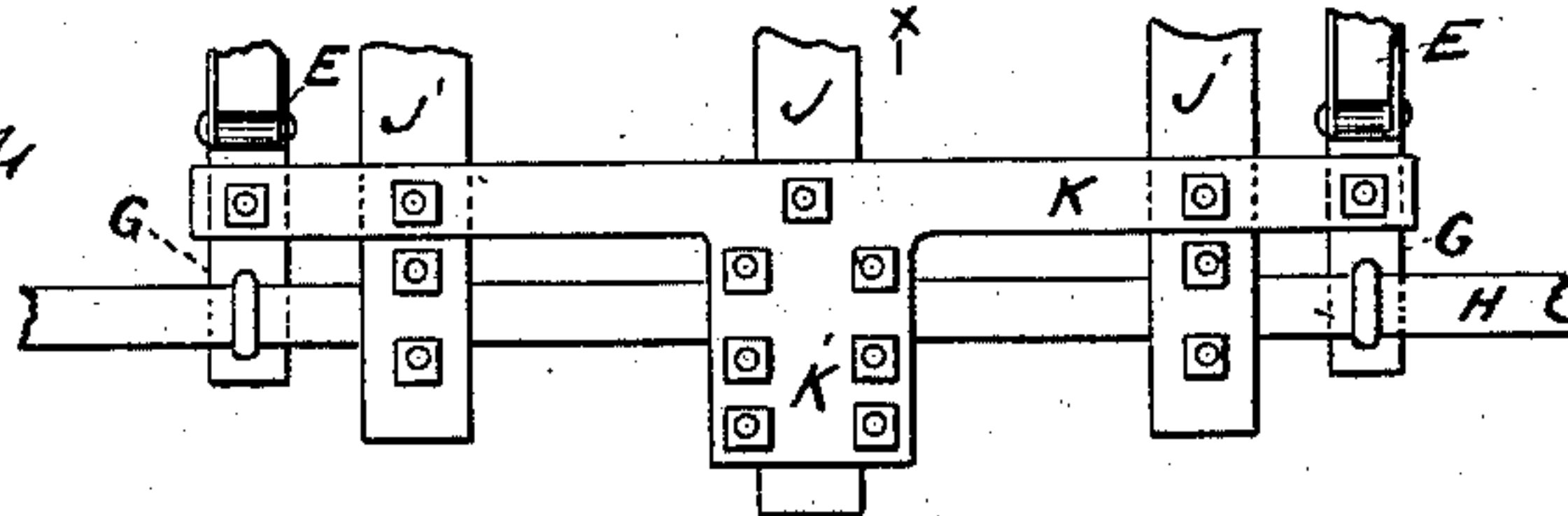


FIG. 5

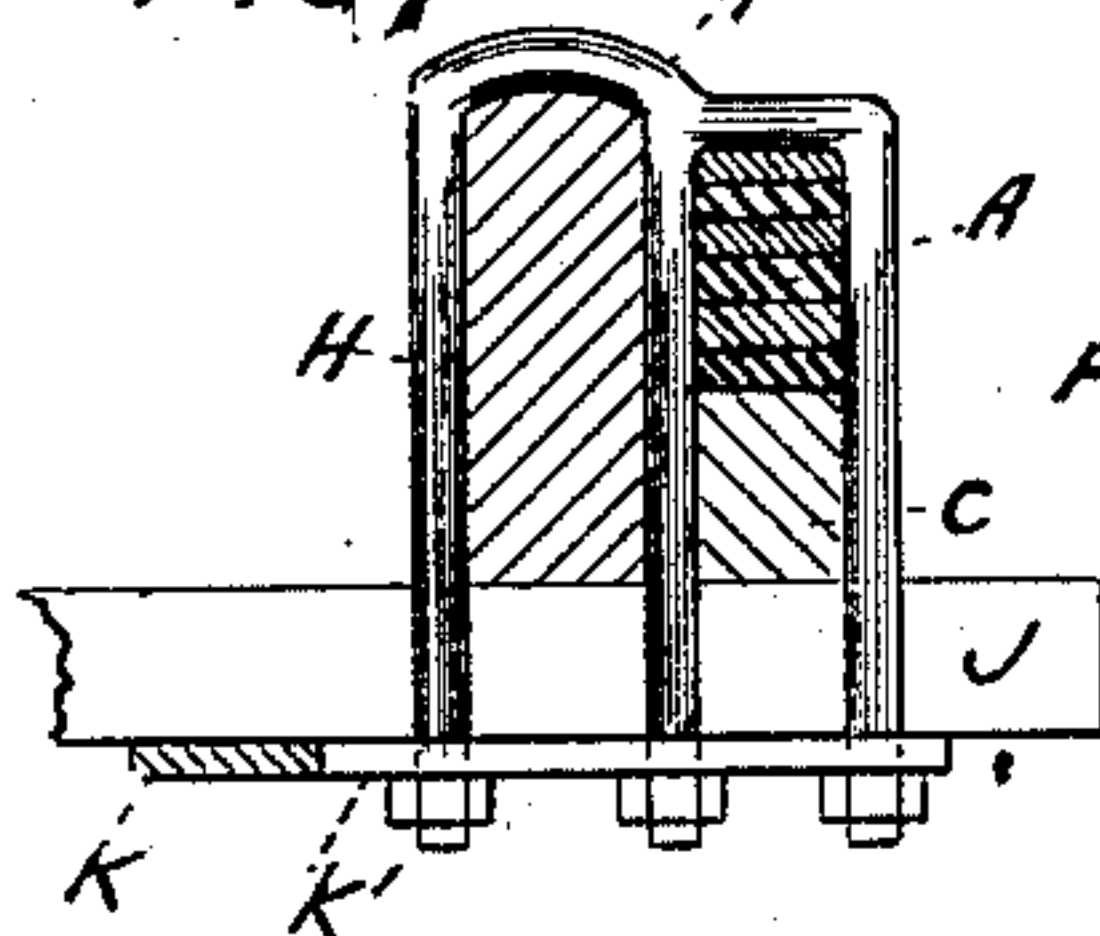
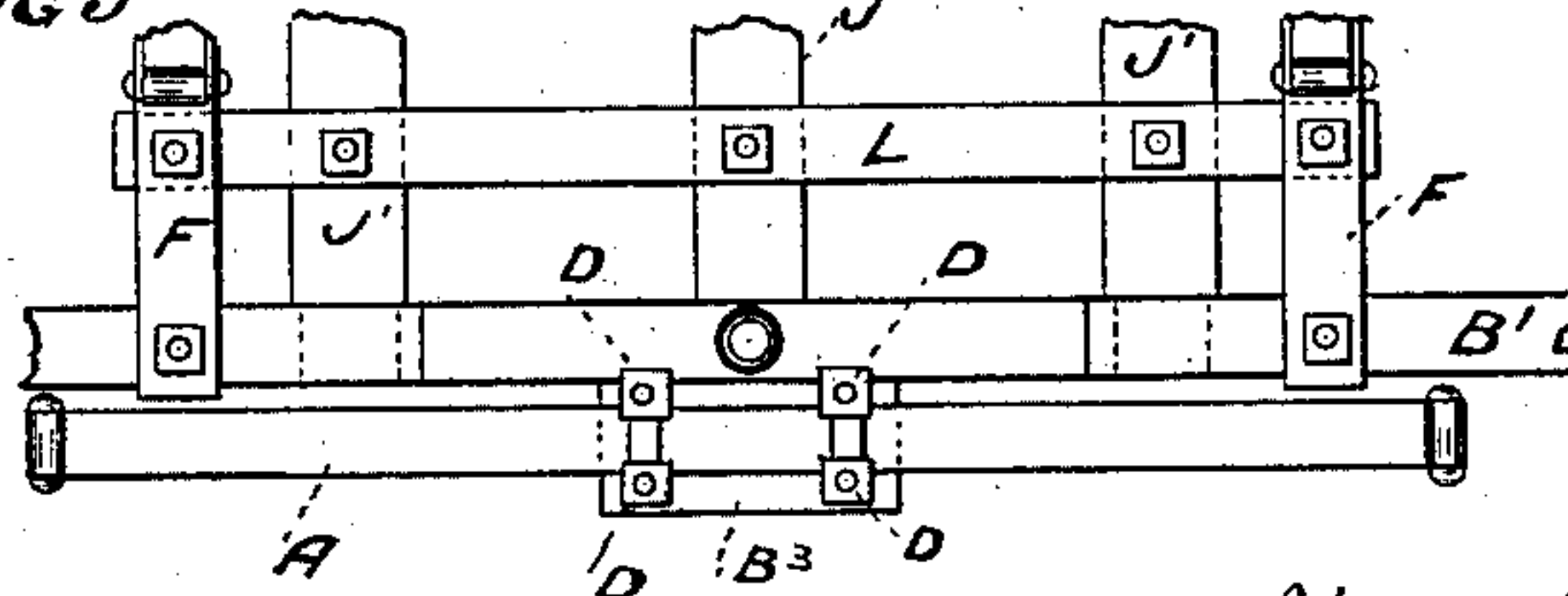


FIG. 6



FIG. 7



WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY M. STODDARD, OF DENVER, COLORADO, ASSIGNOR OF ONE-HALF
TO WALL & PURSEL, OF SAME PLACE.

SPRING-WAGON.

SPECIFICATION forming part of Letters Patent No. 374,278, dated December 6, 1887.

Application filed April 30, 1887. Serial No. 236,636. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. STODDARD, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented new and useful Improvements in Spring-Wagons, of which the following is a specification, reference being had therein to the accompanying drawings, in which similar letters refer to corresponding parts.

My improvements are in spring-wagons, and more especially four-spring wagons; and the object of my improvements is to provide a means for attaching the elliptic end springs to the axle, bolster, and body of a wagon, so that the body may be brought nearer the axles than in the old manner of attaching the elliptic springs, and also to provide a means for shortening the side springs, so that they may be capable of supporting a greater weight, thereby lessening the weight resting upon the end springs, as hereinafter more fully described.

Figure 1 is a front elevation of the forward spring, showing manner of attaching the same to the bolster and body, the bottom of body shown in section and spring-bar and front axle broken off. Fig. 2 is a side elevation of one of the side springs, showing manner of attaching same to the bolster, the rear axle, and body of wagon. Fig. 3 is a rear elevation of the rear spring, showing manner of attaching same to rear axle and body of wagon, the bottom of body shown in section and spring-bar and rear axle broken off. Fig. 4 is an under side view of rear axle, showing rear branching cross-plate and spring-attachments, also showing the rear axle, reaches, and side springs broken off. Fig. 5 is a top view of the front spring, showing the forward-projecting portion of the bolster-plate which supports the front spring, the front branching cross-plate, the side-spring attachments, and also showing the bolster, reaches, and side springs broken off. Fig. 6 is a front edge view of either the front or rear branching cross-plate, also showing the reaches in section. Fig. 7 is a sectional view of the rear axle, spring, and spring-block, taken on the line *x x*, Fig. 3, showing the three-pronged clip and the middle reach and rear portion of rear branching cross-plate broken off.

In the several views I will designate the elliptic end springs by the letter A, the spring-bars by A', and the bottom of body by A².

B is the front axle, B' the bolster, and B² the bolster-plate provided with front projecting portion, B³.

C are the spring-blocks, and D the bolts fastening the front end spring to the portion B³ of plate B².

E is a side spring; E', the hangers; F, the forward attachment connecting forward hanger E' with bolster B', and G the rear attachment connecting rear hanger E' with rear axle, H.

I I are the three-pronged clips for attaching the rear end spring to axle H.

J is the middle reach, and J' the side reaches.

K is the rear branching cross-plate provided with backward projecting portion K', and L is the front branching cross-plate.

In the construction of my improved spring-wagon the spring-bars A' are placed inside of the wagon-body and on top of the bottom thereof. The forward spring, A, is attached to that portion B³ of bolster-plate B² and in front of bolster B' by means of bolts D. The rear spring, A, is attached to and back of rear axle, H, and on top of the end of middle reach, J, by means of the three-pronged clips I. Springs A may also be attached in front of the bolster of the wagon and in rear of and to the back axle in any other suitable manner, so as to place the end springs as near the rear and front ends of the wagon-body as possible. Side springs, E, are attached to the body in any suitable manner and to the bolster by means of hangers E' and attachments F, and to the rear axle, H, by means of hangers E' and attachments G. Attachments F are made longer than attachments G, for the purpose of placing the side springs, E, as nearly under the center from end to end of the body as possible. Branching cross-plates K and L are supports for the attachments F and G, the upper branched portion resting across and on top of reaches J and J', and the lower branched portion extending across and underneath the same.

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

1. In a spring-wagon, the combination of bars A', secured inside of the wagon-body and

on top of the bottom of the same and suitably attached to springs A, the front spring A being attached to bolster B' by bolster-plate B², and the rear spring A being attached to and
5 in rear of the rear axle, H, by means of three-pronged clips I, for the purpose set forth and described.

2. The combination, in a spring-wagon, of bolster B', with bolster-plate B², secured to said
10 bolster, said bolster-plate being provided with front projecting portion, B³, spring A, supported by and attached to said front projecting portion, B³, of bolster-plate B² by means of bolts D and block C, all substantially as set
15 forth and described.

3. In a spring-wagon, the combination of attachments F, secured to bolster B' and attached to springs E by means of hangers E',

branched plate L, secured to and supporting said attachments F, attachments G, secured to 20 axle H and attached to springs E by means of hangers E', branched plate K, secured to and supporting said attachment G and provided with rear projecting portion, K', reaches J and J', attached to and passing between the 25 branches of plates L and K, spring A, axle H, block C, and three-pronged clips I, securing said rear projecting portion, K', of plate K to reach J and axle H, and spring A and block C to said axle and reach, all substantially as 30 set forth and described.

HENRY M. STODDARD.

In presence of—

ADDISON J. FOWLER,
M. O. STRATTON.