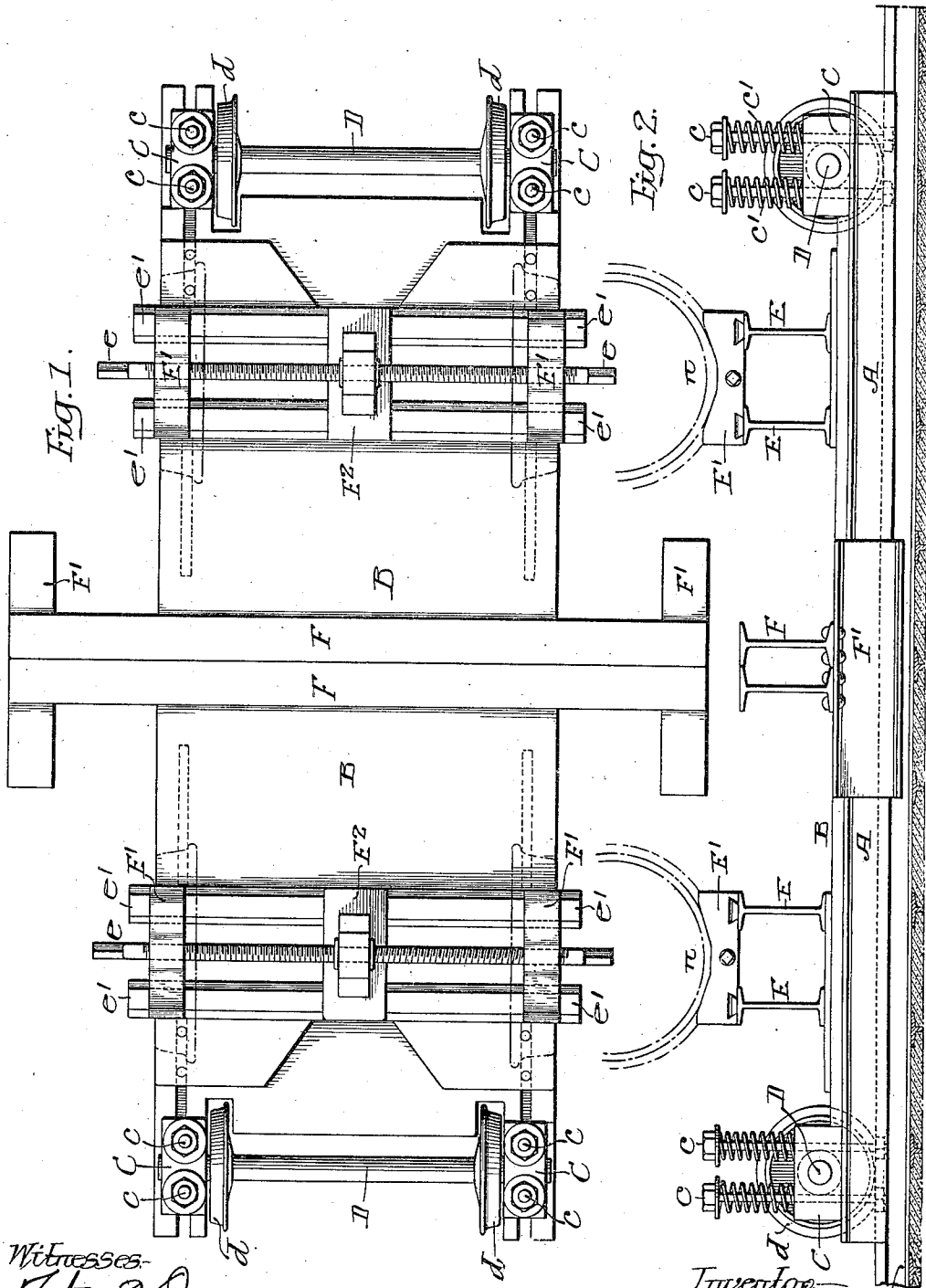


A. C. VAUCLAIN.
 APPARATUS FOR ASSEMBLING CAR TRUCKS.
 APPLICATION FILED AUG. 9, 1910.

1,059,789.

Patented Apr. 22, 1913.

3 SHEETS—SHEET 1.



Witnesses—
Litus H. Jones.
Willis H. Burrows

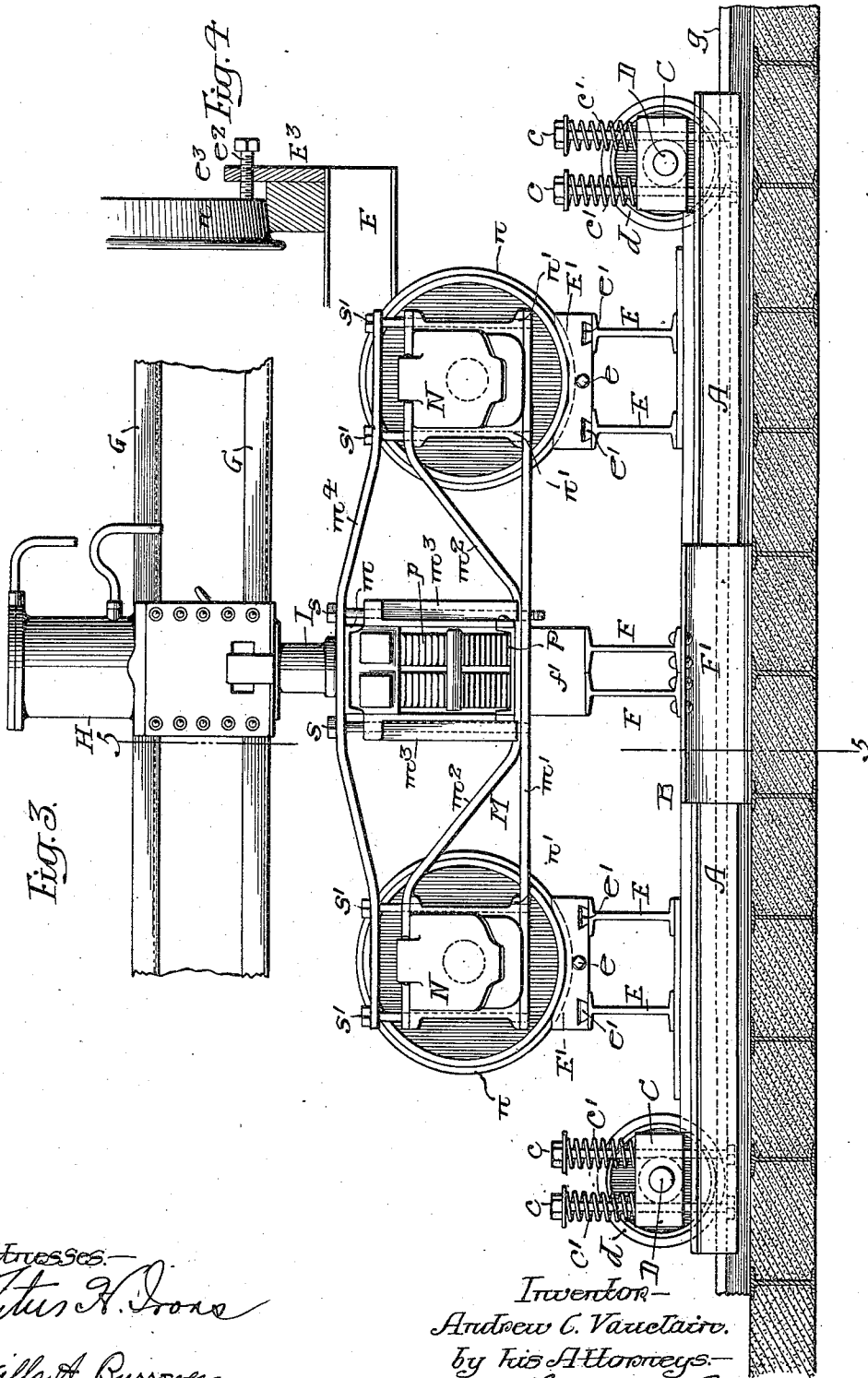
Inventor—
Andrew C. Vaucrain,
 by his Attorneys—
Houston & Houston

A. C. VAUCLAIN.
 APPARATUS FOR ASSEMBLING CAR TRUCKS.
 APPLICATION FILED AUG. 9, 1910.

1,059,789.

Patented Apr. 22, 1913.

3 SHEETS—SHEET 2.



Witnesses—
John H. Jones
Willis A. Burrows

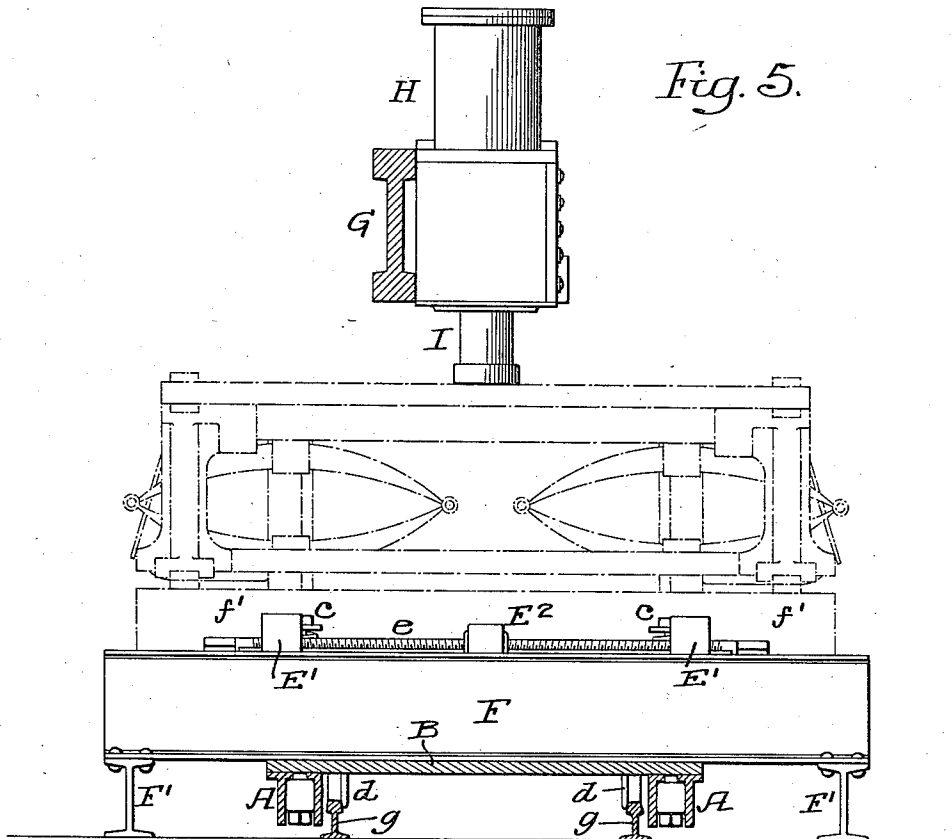
Inventor—
Andrew C. Vauclair
 by his Attorneys—
Howard H. Howard

A. C. VAUCLAIN.
 APPARATUS FOR ASSEMBLING CAR TRUCKS.
 APPLICATION FILED AUG. 9, 1910.

1,059,789.

Patented Apr. 22, 1913.

3 SHEETS—SHEET 3.



Witnesses—

William H. Brown.

Wills A. Brown.

Inventor—

Andrew C. VaucLain.

by his Attorneys—

Howson & Howson

UNITED STATES PATENT OFFICE.

ANDREW C. VAUCLAIN, OF PHILADELPHIA, PENNSYLVANIA.

APPARATUS FOR ASSEMBLING CAR-TRUCKS.

1,059,789.

Specification of Letters Patent.

Patented Apr. 22, 1913.

Application filed August 9, 1910. Serial No. 576,368.

To all whom it may concern:

Be it known that I, ANDREW C. VAUCLAIN, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Apparatus for Assembling Car-Trucks, of which the following is a specification.

The object of my invention is to construct an apparatus for assembling car trucks in which the springs have to be compressed before the frames are bolted together. In this type of truck the springs are assembled with the bolster and columns and the columns are secured to the side frames after the axles, boxes and springs are in place.

Heretofore the assembling has been done entirely by hand and this operation has been tedious and expensive.

In the accompanying drawings:—Figure 1, is a plan view of my improved car truck assembling apparatus; Fig. 2, is a side view; Fig. 3, is a side elevation of the apparatus, showing the truck in position prior to compressing; Fig. 4, is a view of a modification of one part of my invention; and Fig. 5, is a sectional view on the line 5—5, Fig. 3.

A is the frame of the apparatus made of channel or other shaped bars, and on this frame is mounted a bed plate B. Extending from each end of each side member of the frame are vertical bolts *c* on which are mounted the axle boxes C. Springs *c'* are mounted between the heads of the bolts and the boxes, so that the frame can yield vertically. Mounted in the boxes C are axles D having flanged wheels *d* which are arranged to travel on rails *g* secured to the floor or foundations of the building.

E—E are transversely arranged I-beams secured to the frame A and on these I-beams are adjustable blocks E' having recesses in their upper surface to receive the treads of the wheels *n—n* of the truck to be assembled. These blocks E' can be adjusted toward and from each other by a screw rod *e* having right and left hand threads thereon. The right hand thread is adapted to mesh with the threads on one block and the left hand threads are adapted to mesh with the threads on the other block. The rod is held against longitudinal movement by a central permanent bearing E² secured to the I-beams E.

On the upper surface of each I-beam is an under-cut guide *e'* and each block has an under-cut groove of the same shape as the

guides. On turning the screws *e* the blocks can be adjusted to accommodate wheels of trucks of different gage. At the center of the frame A is a transverse member consisting of two I-beams F, in the present instance, and secured to each outer end of these I-beams is a beam F' forming a foot block. This construction is of sufficient strength to resist the downward pressure of a ram when it compresses the members of the truck during the process of assembling as it takes the weight off of the frame and other parts of the structure.

Mounted on suitable overhead beams G—G, in the present instance, is a hydraulic cylinder H, having a ram I so shaped as to bear against the bolster *m* of the truck. This hydraulic ram can be operated by any suitable valve medium. Other forms of rams may be used, if found desirable.

In assembling the truck I first mount the axles with their attached wheels on the blocks E'—E', then I place each lower truss member *m'* on a block *f'* carried by the beams F. The boxes N—N are then slipped on the ends of the axles and above the lower truss member *m'*, then the diagonal truss members *m*² are placed in position, after which the spring plank *p* with the columns *m*³ are located in the proper position, then the springs P and bolster M are placed in position. After these parts are all properly located the upper truss member *m*⁴ is placed in position, as shown in Fig. 3, and the several vertical bolts *s—s'* applied with their heads resting on the upper truss member. The assembled truck is then placed under the plunger I and this plunger is forced downward, pressing upon the bolster M and compressing the springs P, allowing the upper truss member *m*⁴ to drop onto the boxes and the columns, so that the ends of the several bolts project through the openings in the bottom member *m'* and when in this position the nuts are applied so as to hold the several parts firmly together, after which the plunger is released. The truck is then assembled and can be removed from the apparatus. As the plunger presses upon the truck frame, the main frame A of the apparatus is forced down until the foot blocks F' rest directly upon the floor or foundation, relieving the axles D and their wheels from strain, and as the pressure is continued the springs P of the truck are compressed to the extent desired. After the ram I is raised

the frame A is moved to one side and the truck removed from the frame and another truck assembled thereon and placed in position under the ram and the above operation repeated.

In place of the right and left hand screws illustrated in Fig. 1, the blocks for supporting the wheels of the truck may be made stationary, as shown at E³, Fig. 4, and set screws e² may be screwed into flanges e³ on the blocks for adjusting the wheels to the position desired.

I claim:

1. The combination in an apparatus for assembling trucks, of a frame, blocks mounted on the frame for supporting the wheels of a truck to be assembled, a centrally located beam for supporting the center of the truck when compressed and compression means above the center of the truck for bearing upon the bolster to compress the springs so that the parts of the truck can be rigidly secured while the springs are under compression.

2. The combination in an apparatus for assembling car trucks, of a frame, axle boxes mounted on the said frame, springs located between the axle boxes and the frame, axles mounted in the boxes, wheels on the axles, a supporting frame, blocks carried by the frame for supporting the wheels of a truck to be assembled, and means on the frame for supporting the truck when compressed, and a compression means located above and independent of the frame and arranged to bear upon the bolster to compress the springs and to bring the parts together so that they can be rigidly secured in position.

3. The combination in apparatus for assembling car trucks, of a frame, axle boxes mounted on the frame, springs mounted between the boxes and the frame, axles adapted to the boxes, wheels on the axles, rails for supporting the wheels, two sets of transversely arranged beams, blocks on the beams for supporting the wheels of a truck to be assembled, a transverse beam centrally located for supporting the truck when compressed, and a ram located above and independent of the frame and adapted to press upon the bolster of the truck to compress the springs to allow the side members of the truck to be securely fastened together.

4. The combination in means for assembling car trucks, of a frame, axles yieldingly carrying said frame, blocks on the frame,

means for adjusting the blocks transversely, beams on the frame for supporting the truck when compressed, and a ram located above and independent of the frame and arranged to compress the springs of a truck to be assembled, so that the side members of the truck frame can be rigidly secured in position.

5. The combination in means for assembling car trucks, of a frame, axles yieldingly mounted on said frame, two sets of transverse beams spaced apart, blocks slidably mounted on the beams for supporting the wheels of the truck to be assembled, a right and left hand screw for adjusting the blocks toward and from each other, a transverse beam at the center of the frame and having foot blocks adapted to rest on the floor, with a plunger mounted above the frame adapted to press upon the bolster and compress the springs so as to allow the side members of the frame to be brought together and assembled.

6. The combination in apparatus for assembling car trucks, of a frame, blocks mounted thereon for supporting the wheels of a truck to be assembled, means on the frame for supporting the central portion of the truck, foot blocks carried by said means adapted to rest upon the floor when pressure is applied, and compression means located above the frame and arranged to bear upon the assembled parts of the truck so as to compress the springs and allow the parts of the frame to be secured together.

7. The combination in apparatus for assembling car trucks, of a frame, blocks mounted thereon for supporting the wheels of trucks to be assembled, a transverse beam carried by the frame located midway between the bearing blocks for the wheels, blocks mounted on said beam and upon which the center portion of each side frame of the truck rests, a compression plunger so located as to bear upon the bolster and compress the springs of the truck so as to allow the members of the side frames to be secured together.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

ANDREW C. VAUCLAIN.

Witnesses:

WM. BROWN, Jr.,
HENRY HOWSON.