

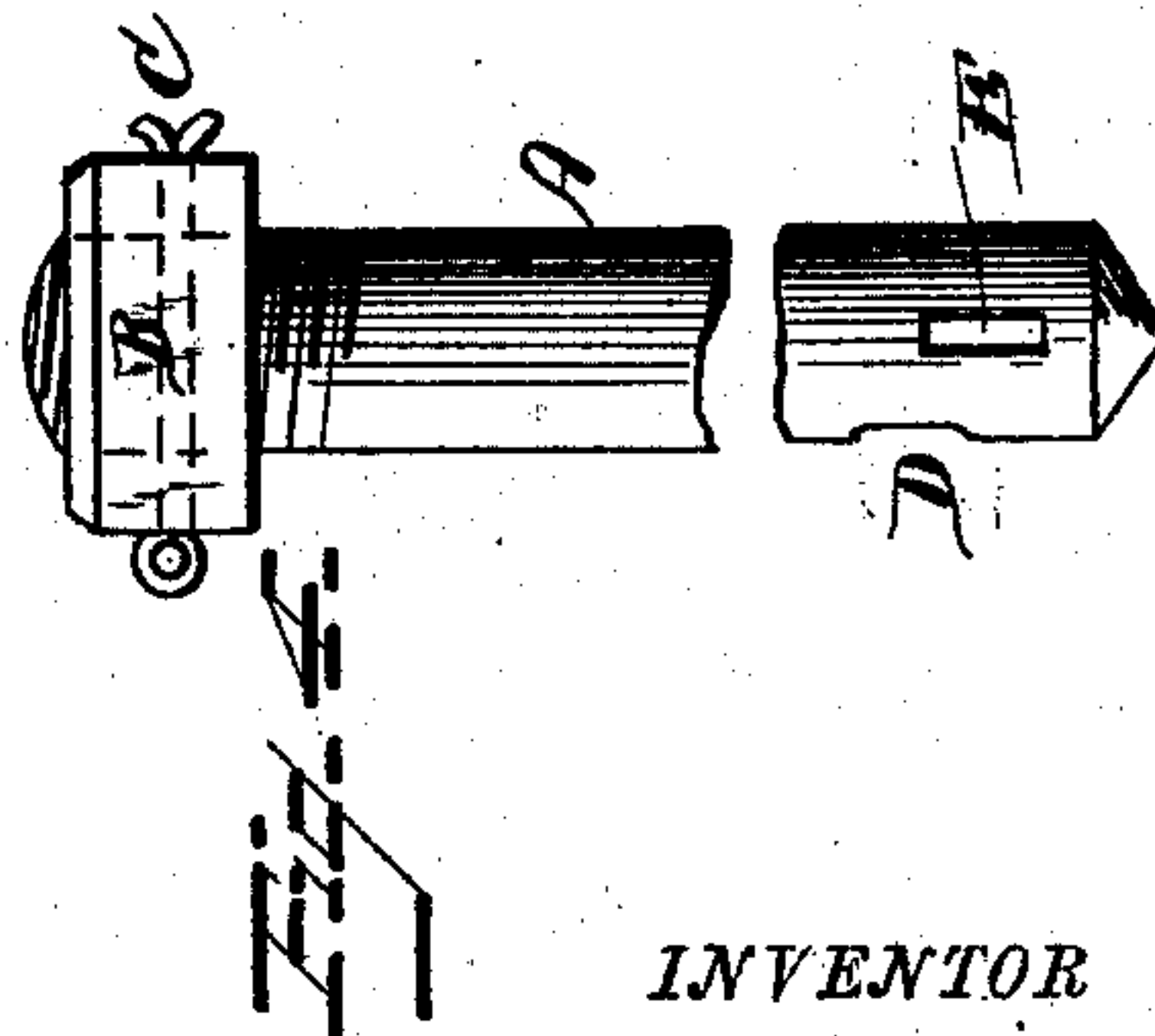
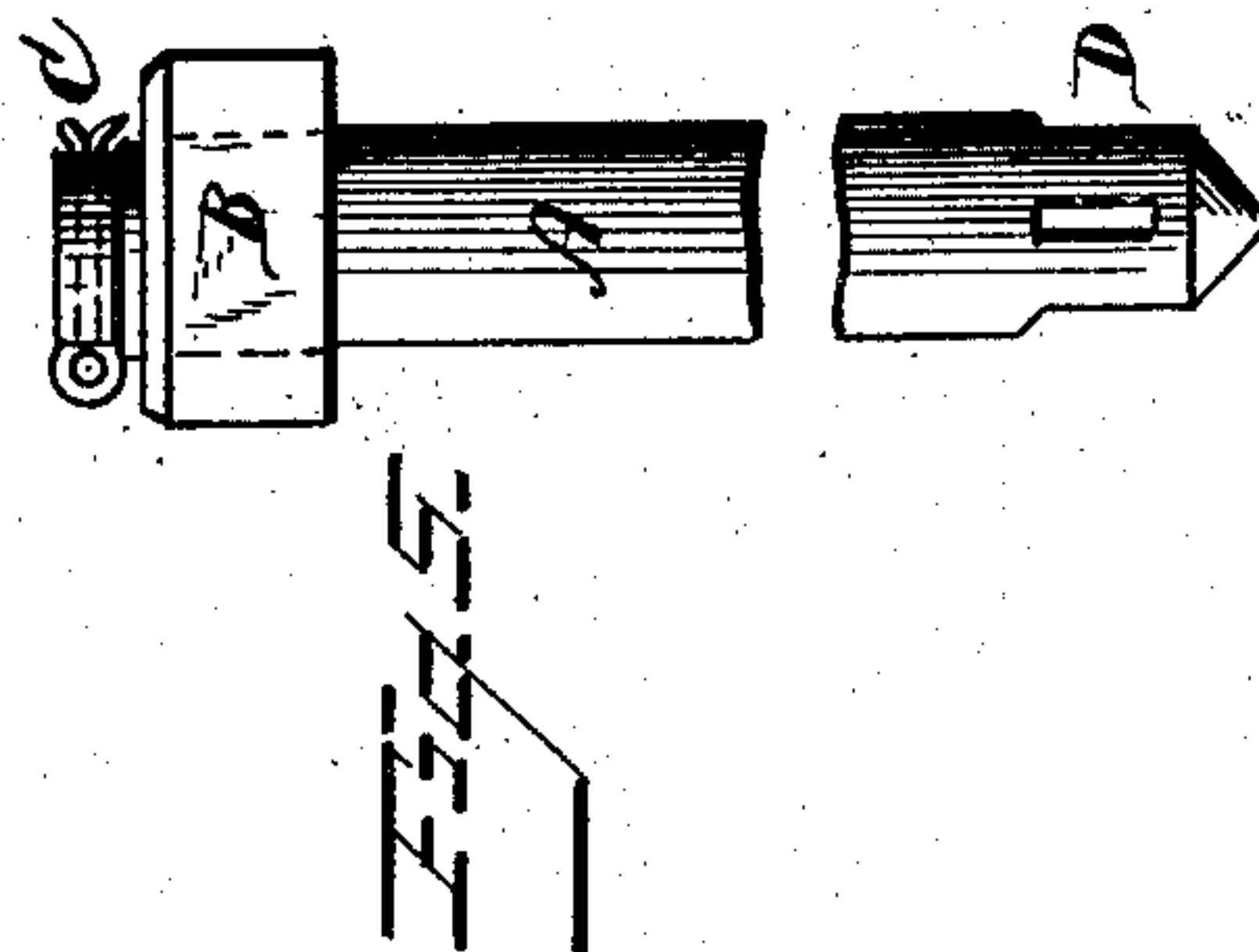
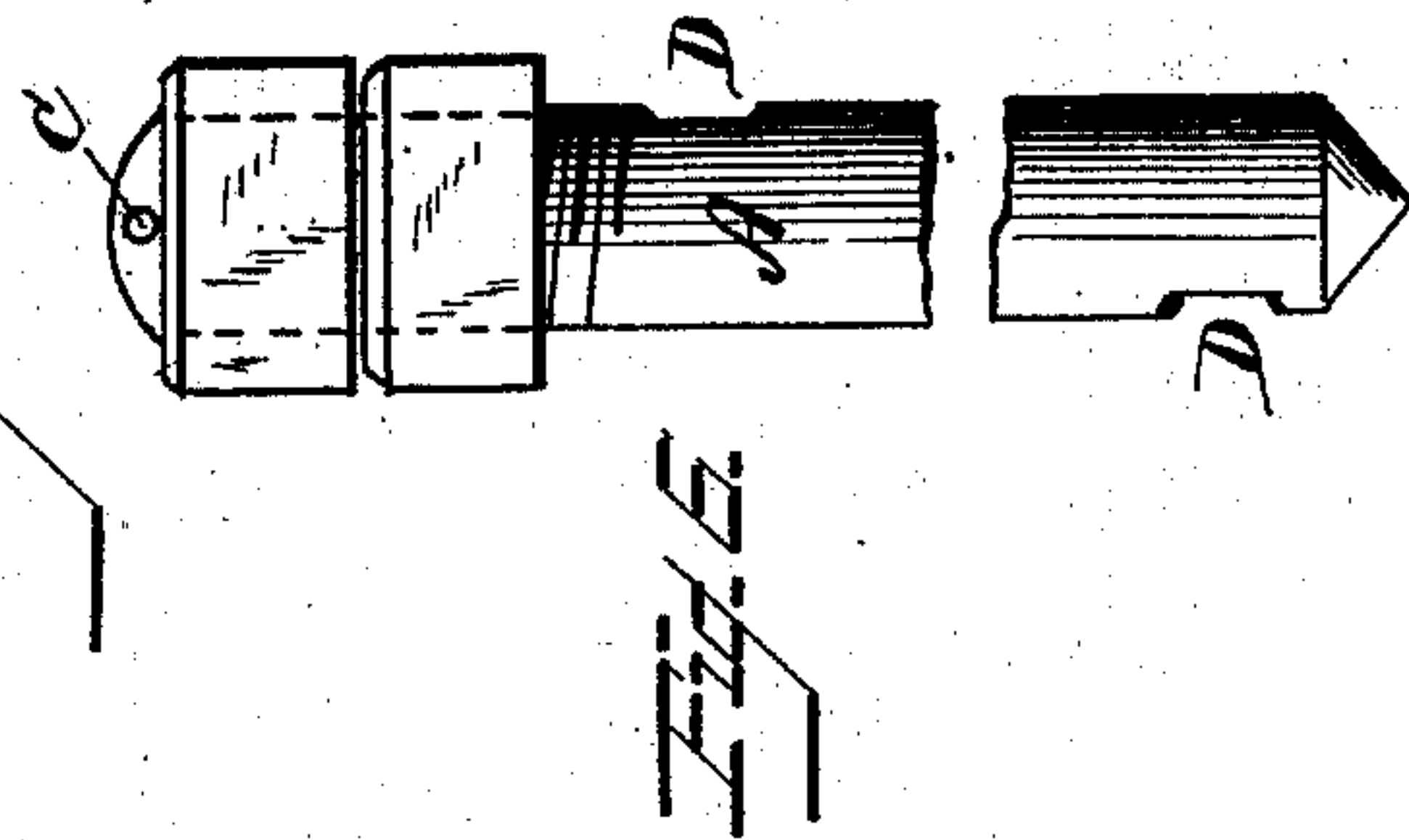
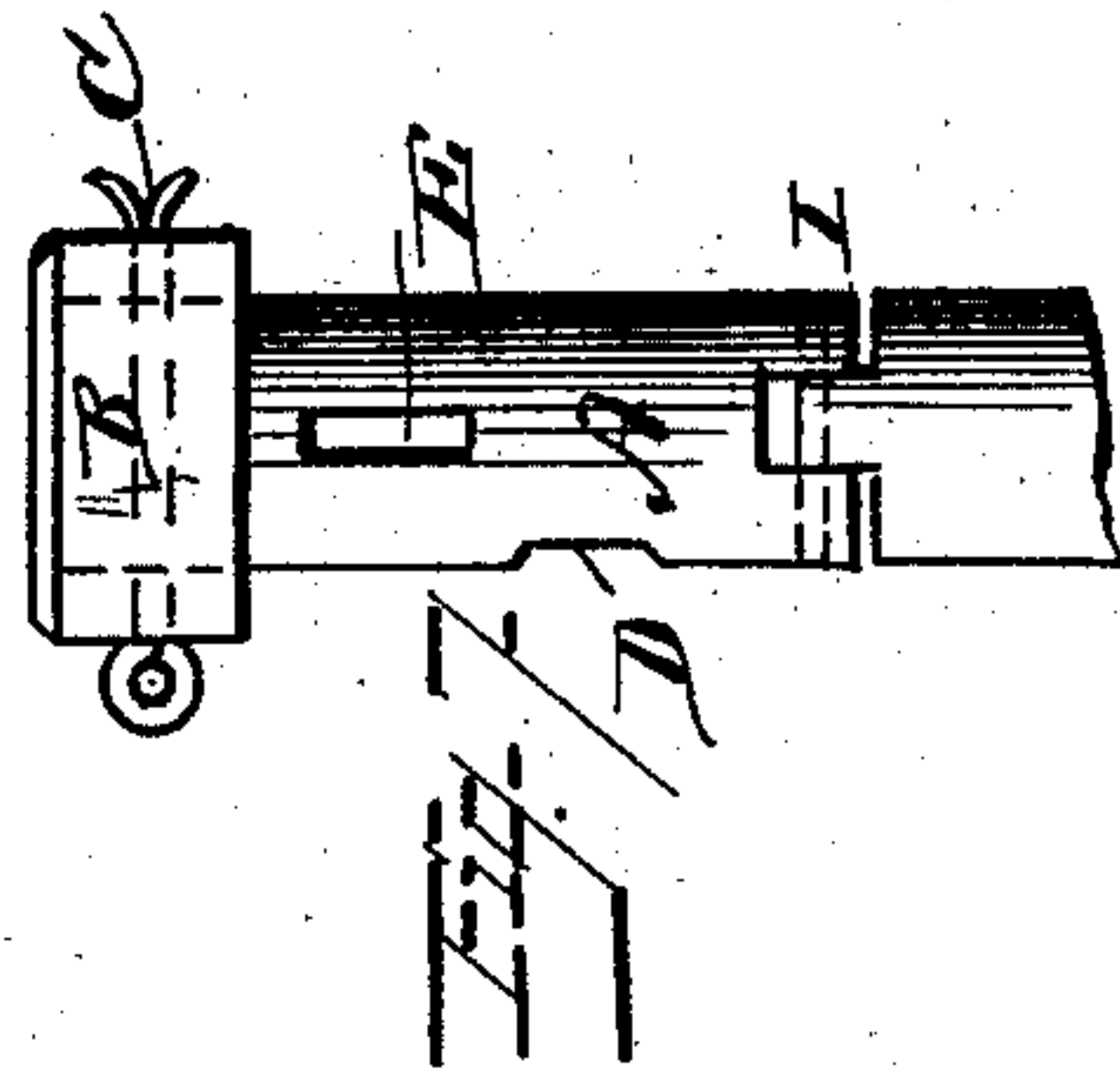
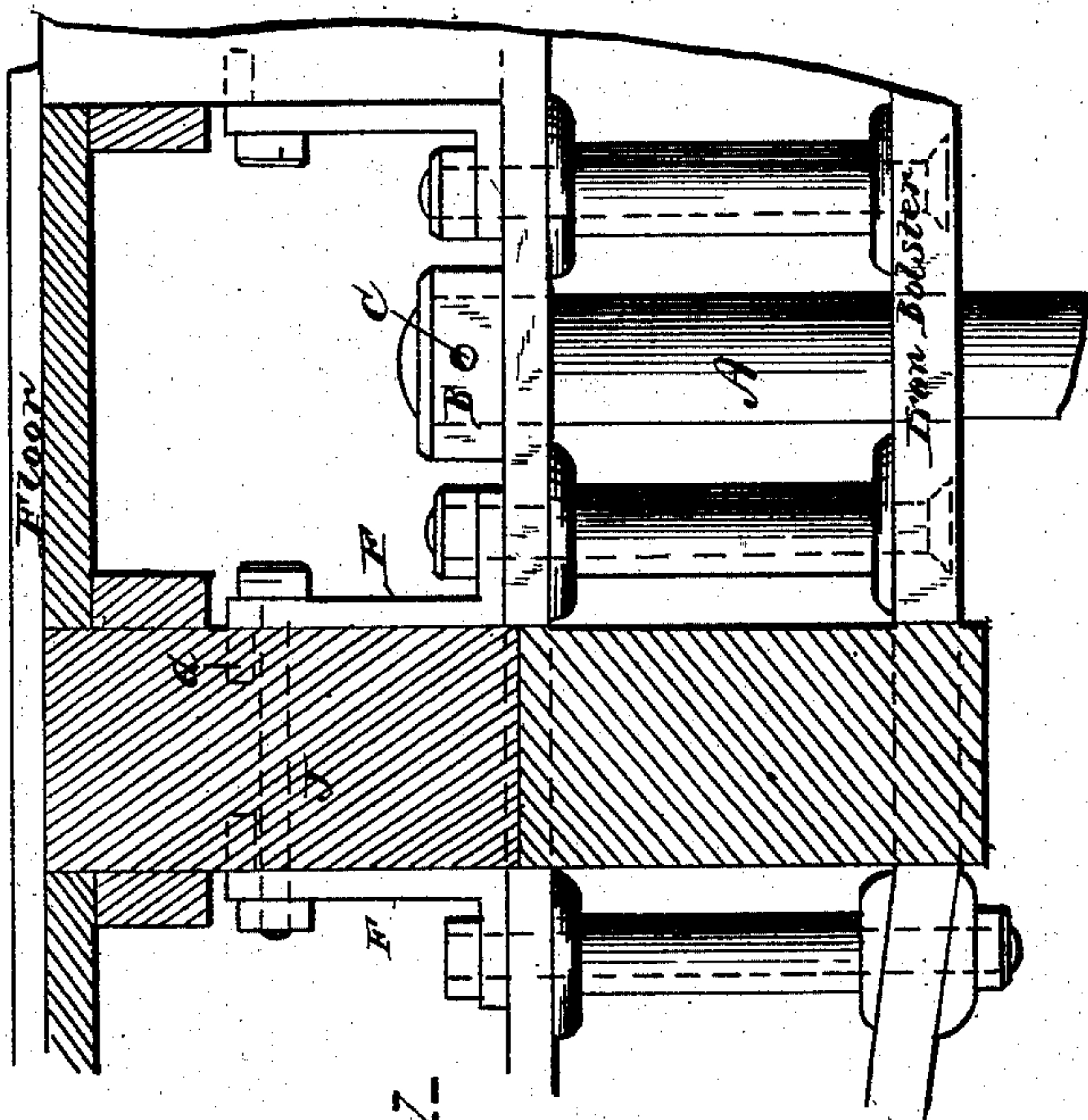
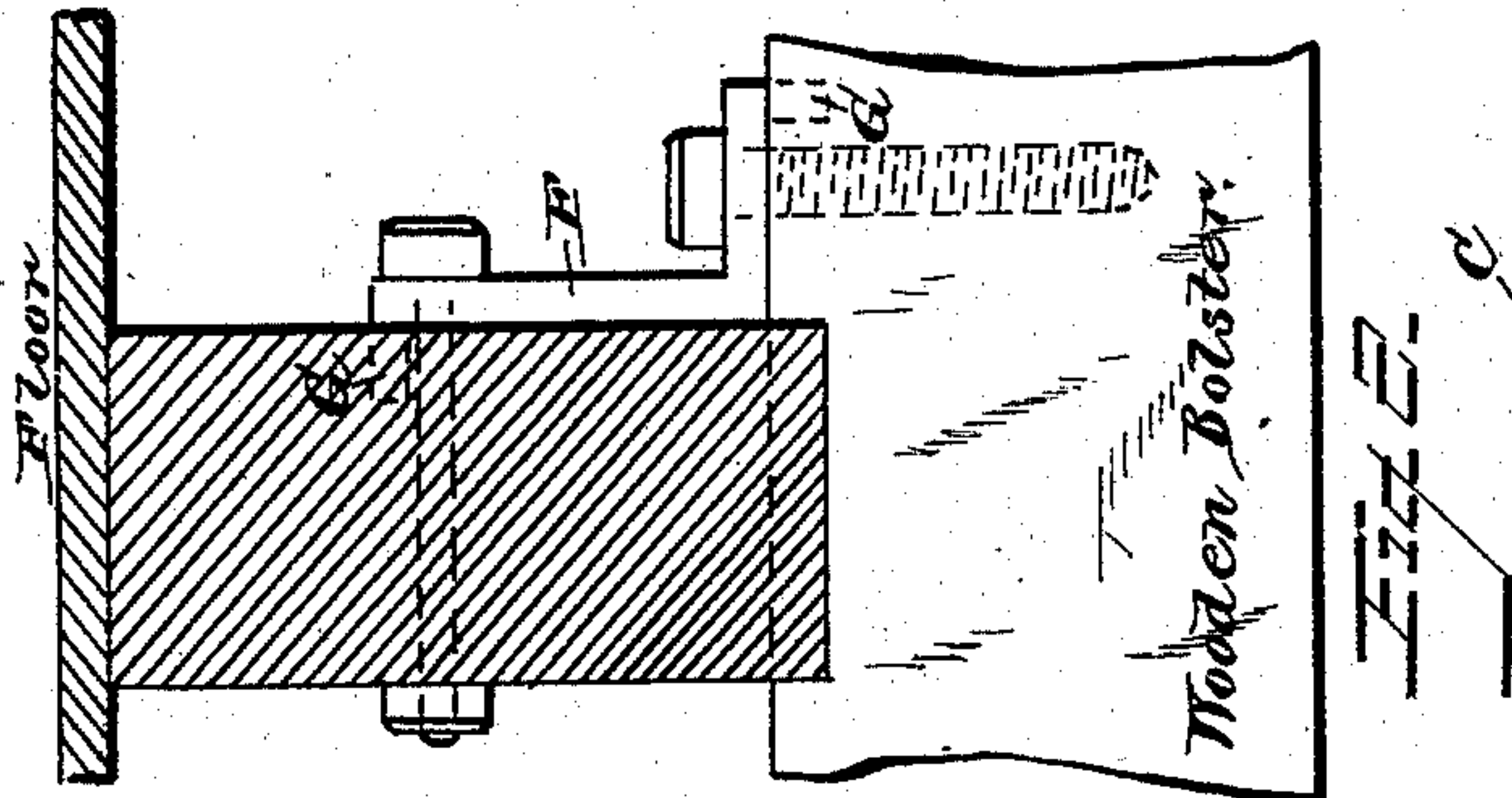
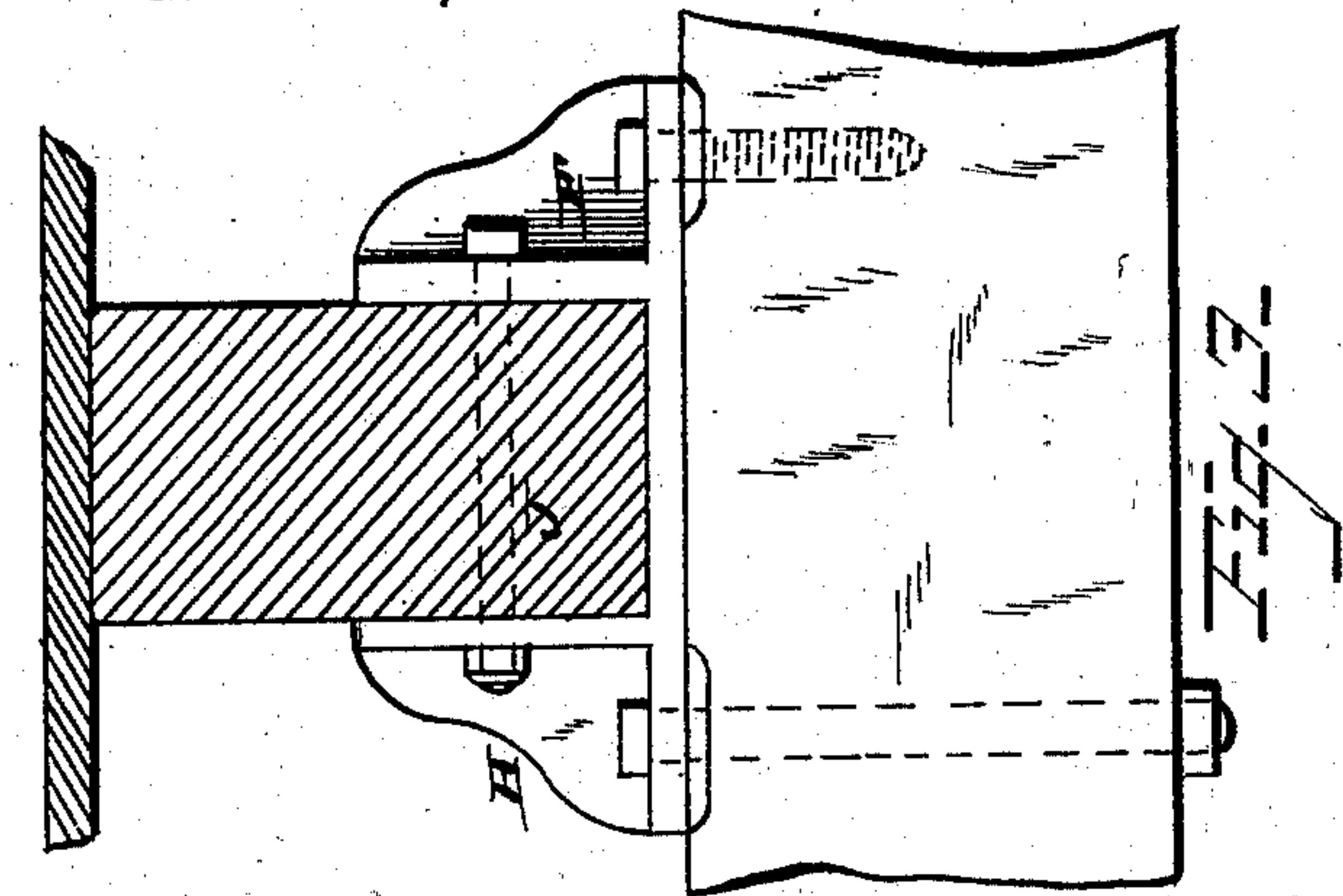
(No Model.)

S. K. BAYLEY.

RAILWAY CAR.

No. 284,362.

Patented Sept. 4, 1883.



WITNESSES
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SAMUEL K. BAYLEY, OF BOSTON, MASSACHUSETTS.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 284,362, dated September 4, 1883.

Application filed January 9, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL K. BAYLEY, of the city of Boston, county of Suffolk, State of Massachusetts, have invented certain new and useful Improvements in Railway-Cars, of which the following is a specification.

My invention relates to a removable headed king-pin, which may be taken out without disturbing the car body or trucks, and the use of angle-iron to hold the bolster and cross-pieces to the stringers of a car, so as to facilitate repairs and not disturb the floor or other parts.

In the accompanying drawings, Figure 1 is a vertical section of the car-frame at the bolster, showing parts of the floor and end of stringers on an iron bolster, and also the mode of applying the angle-iron and king-pin. Fig. 2 shows a vertical section at the bolster, when wood is used instead of iron, illustrating the way of using angle-irons with a wooden bolster. Fig. 3 shows a similar section, a chair with feet being used to hold the stringer in place upon the bolster. Fig. 4 shows a king-pin with a screw-nut head keyed to the pin, and at the lower end a flattened surface and key-hole. Fig. 5 shows a modified form of king-pin with a screw-head and key above the head, the part where the key goes through being smaller than the rest of the pin. At the other end it has a squared point with a key-hole. Fig. 6 shows another form of king-pin with a double screw-nut head keyed above and having a flattened surface near the top and another near the bottom. Fig. 7 shows the king-pin with a plain head keyed with a key-hole near the top and a joint midway of its length.

The king-pin A may be of any required size or suitable material, and is formed with a removable head, B, and a key-pin, C, running through it, and with planed surfaces D and slots E. There may be various modifications of the arrangement of these parts, as shown in combination, as in Figs. 6 and 7. In Fig. 5 the top of the pin is smaller, so that the key can be cut off, and then run through the thread of the screw-nut head and not damage it in any way. Fig. 6 has a double screw-nut head, and, if found necessary, can be keyed also. In this form of the pin the surface D is

placed on the pin very near the top. Fig. 7 has simply a plain head keyed, and is jointed at a point so that it can be turned out over the top of the bolster.

The angle-irons F, Fig. 1, are made in any of the forms of angle-iron in common use, and can have a web, H, running from top to bottom. When cast in chair form, it would be necessary, as shown in Fig. 3. The upper ends, G, of the angle-irons are turned in, so as to relieve the bolt J from as much strain as possible. When a wooden bolster is used, the other end should also be turned, as in Fig. 2, and when first put on a piece of paper or other substance should be put under, so that it can be partly or entirely removed when the timbers commence to shrink and be screwed up into place. One or two can be used to a stringer, and they can be fastened by a bolt or lag-screw. To make them more secure, lips can be put on each side when they are the full width of bolster, as in Fig. 3.

The object of having a removable king-pin in railway-cars, especially in refrigerator and freight cars, is the saving of taking or cutting out the floors when they wish to get at the pin for repairs, and in refrigerator-cars they have to break through the insulation, which is a great injury to them; also, when the trucks have to be taken out the car has to be jacked to a dangerous height, which requires considerable labor and skill, whereas if they can drop the king-pin below the center plate only a few inches rise will be enough to run the trucks out from under the car. All railroad men will see the usefulness of this invention, as when the pin has to be replaced it is generally found the car is loaded and necessitates unloading one-half the car at least. As I now arrange the pin, it can be held while the head is turned, or taken off by the use of two wrenches, or a key-iron and wrench when iron bolsters are used; or blocks alongside of the head will hold it while being turned from below.

The angle-irons facilitate repairs when cross-pieces or stringers are broken, and in refrigerator-cars they are invaluable, as it saves the breaking of the insulation. I have shown some of the ways of putting them on; but

they can be turned upside down whenever convenient.

What I claim as my invention, and desire to secure by Letters Patent, is—

5 1. In a car-frame, the combination of stringers and cross-pieces, said stringers resting on top of the cross-pieces, with angle-irons each having one member thereof secured upon a cross-piece, and the other member to a stringer
10 by a projection, G, and bolt or bolts passing transversely through the same, substantially as described.

2. A round king-pin for car-trucks, having

a flattened portion or wrench-holding surface and a removable head, substantially as de- 15 scribed.

3. A king-pin for car-trucks, having a flat portion or wrench-holding surface, a removable head, and jointed midway or at any part of its length, as and for the purpose shown 20 and described.

SAM. K. BAYLEY.

Witnesses:

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H. C. HUNTEMANN.