C. HARTMANN.

DYNAMO MOUNTING.

APPLICATION FILED DEC. 26, 1916.

1,344,946.

Patented June 29, 1920.

2 SHEETS—SHEET 1.

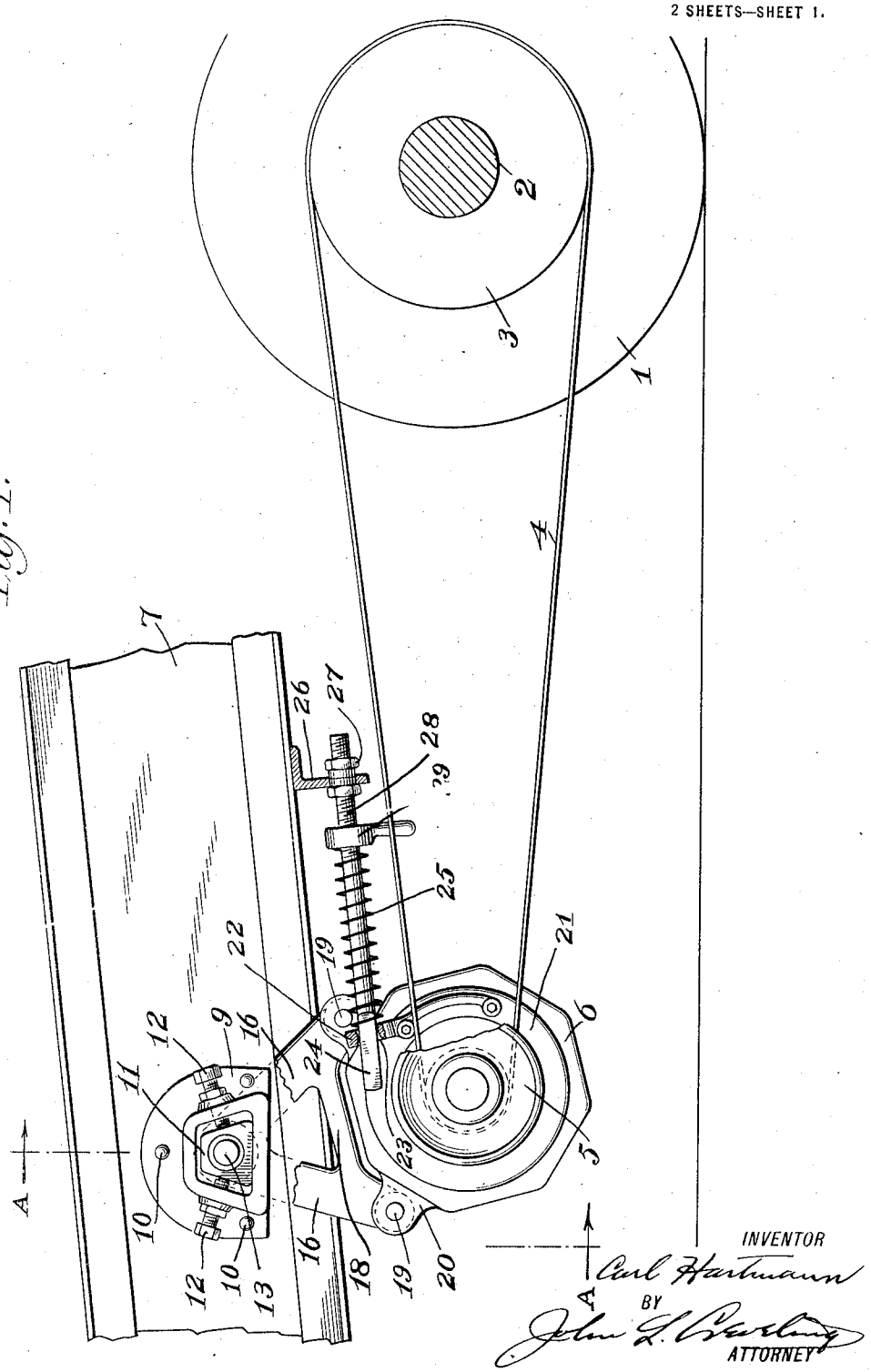


Fig. 1.

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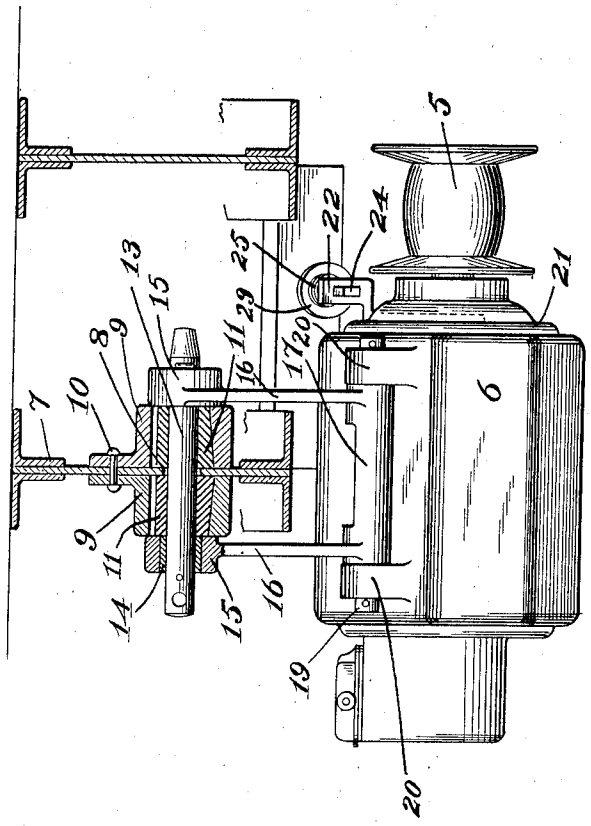
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2 SHEETS—SHEET 2.

Fig. 2.



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DYNAMO-MOUNTING.

1,344,946. Specification of Letters Patent. Patented June 29, 1920.

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To all whom it may concern:

Be it known that I, CARL HARTMANN, a subject of the Emperor of Germany, and residing at Rochester, county of Monroe, State of New York, have invented new and useful Improvements in Dynamo-Mountings, of which the following is a description.

My invention pertains to that class of dynamo mountings used to hold a dynamo or generator in operative relation to a driving means and wherein the relative positions of the dynamo carrying structure and the driving means are subject to considerable alteration; for example, a dynamo carried by the body of a car or a portion of a car truck and driven from one of the axles thereof, which is subject to considerable changes of position with reference to the other portions of the car or truck.

My invention is particularly applicable to cases where it is desired to suspend the dynamo from the body portion of the car or from some depending portion thereof, as from one of the girders now used in steel car construction.

In the drawings, Figure 1 is a side elevation and partial section of parts of a car and an end elevation and partial section of a dynamo and mounting involving my invention.

Fig. 2 is a partial section of a portion of the girders and a portion of my mounting and a side elevation of a generator carried thereby, said section being taken on the line A—A of Fig. 1.

In Fig. 1, 1 represents a car wheel provided with the axle 2, upon which is placed any suitable type of driving pulley 3, adapted to engage the belt 4 which is adapted to run upon the face of the flanged pulley 5 of the dynamo 6, shown also in Fig. 2. 7 indicates one of the girders for supporting the car body and chosen for the particular member to which my mounting is applied. The web of the girder is preferably perforated as at 8 and has, on opposite sides thereof, flanges 9 securely held in place as by rivets 10 through the flanges and the web as shown. Within the openings of the flanges 9 are placed the bearing blocks 11, preferably having their bottom faces inclined, as shown in Fig. 2, so that weight upon the said blocks tends to cause them to move toward each other. The said blocks 11 fit loosely within the flanges 9 and are held in proper position by the set screws 12 on opposite sides of the said blocks, which tend to crowd the same downwardly upon their inclined seats in the flanges and hold the same firmly in fixed adjustable positions. The blocks 11 are provided with apertures snugly fitting the pin 13, which also snugly fits the bushings 14 within the bosses or hubs 15 of the links or arms 16, united at their other extremities as by members 17 (see Fig. 2) and webs 18 (see Fig. 1). The arms or links are attached to the generator 6 as by the pins 19 passing through the bosses 20 upon the generator frame and through the members 17, the pins 13 and 19 being held in their proper places by use of cotter pins or any other well-known expedient, as desired. The generator end plate or flange 21 has attached thereto a member provided with an extension 22, perforated as at 23 with a rectangular hole, which loosely engages the squared end 24 of the rod 28, the other end of which is supported by the angle iron 26 wherein it is rotatably held as by the adjustable jam nuts 27 on opposite sides of the said angle iron and provided with shoulders which abut each other, as clearly indicated in Fig. 1. The threaded portion of the rod 28 is provided with the nut 29, having a suitable pendulum handle to prevent vibration from revolving the same. The nut 29 engages one end of the compression spring 25 surrounding the rod 28 and compressed between the said nut and the member 22, in such manner as to tend to swing the generator away from the axle 2 and yieldingly bring suitable adjustable tension upon the driving belt 4.

It will be noted that proper alinement of the generator shaft with respect to the axle 2 may be obtained by adjusting the position of the blocks 11, by means of the adjusting screws 12, which may be set up at the proper adjustment and will crowd the blocks downwardly upon their inclined seats and such adjustment may be held by suitable lock nuts as shown.

It will further be noted that, as the belt may stretch or the axle 2 may move, practically constant tension will be held upon the belt by the long compression spring 25.

It will further be noted that by using the arms 16, uniting members 17 and the bosses 20 upon the generator instead of casting the

arms integrally with the generator shell or frame, I may use various sizes and types of my mountings or other carrying means with the same generator without altering the construction of the same.

I do not wish in any way to limit myself to the exact details of construction or application above outlined to illustrate one embodiment of my invention, as considerable departure may be made therefrom without departing from the spirit and scope of my invention, which is as set forth in the following claims:

1. A dynamo mounting comprising a unitary supporting frame having arms, a shaft passing through an opening in each of said arms, bearings for said shaft, means for adjusting and holding said bearings, and a dynamo rigidly attached to said supporting frame.

2. In combination, a car having longitudinal members on the underneath side thereof, a dynamo mounting comprising a unitary supporting frame having arms, adjustable bearings mounted in one of the members underneath said car, a shaft passing through openings in said supporting frame and carried by said bearings, and a dynamo mounted on said supporting frame.

3. In combination, a car having longitudinal members on the underneath side thereof, a dynamo, a unitary supporting frame having A-shaped arms at each end thereof astride the dynamo and rigidly attached thereto, bearings in one of said longitudinal members, a shaft passing through openings in the upper end of said arms and carried by said bearings, and means for adjusting the position of said bearings.

4. The combination with a car-body comprehending a depending supporting member, of means for mounting a dynamo upon said car-body comprehending arms for supporting the dynamo, means for engaging said arms and said depending member comprehending adjustable bearings carried by the said depending member, and a transverse member supported by the bearings and carrying said arms.

5. The combination with a car body comprehending a depending member, of means for mounting a dynamo upon said car body comprehending a frame for carrying the dynamo and means for engaging said frame and said depending member comprehending adjusting means for holding the dynamo in adjustment with respect to said depending member and resilient means tending to swing the dynamo and its supporting frame.

6. The combination with a car body and truck, of a suspension device and means for fixedly attaching a dynamo thereto, means for carrying said device from said car body comprehending means for engaging the device and a portion of said body and holding said device in adjustable relation to said body, driving means carried by the truck, means operatively connecting said driving means with the dynamo and yielding means tending to swing the dynamo and exerting substantially constant tension upon the driving means.

7. The combination with a car body provided with a longitudinal girder, of means for carrying a dynamo upon said car body comprehending a swinging frame engaging the dynamo and the girder and provided with means for adjusting the relationship thereof with respect to said girder.

8. The combination with a car body provided with a longitudinal supporting girder, of means for carrying a dynamo upon said car body comprehending a swinging frame engaging the dynamo and the girder and provided with means for adjusting the relationship thereof with respect to said girder, comprehending adjustable bearing members upon opposite sides of said girder and means for adjusting and determining the position thereof.

9. The combination with a longitudinal underframing member of a car body, of means on opposite sides of said member for adjustably supporting bearing members, bearing members adjustably supported thereby, means engaging said bearing members, and means for engaging said last named means and a dynamo.

CARL HARTMANN.