C. PEARSON.

PITMAN CONNECTION.

APPLICATION FILED FEB. 27, 1919.

1,394,784.

Patented Oct. 25, 1921.

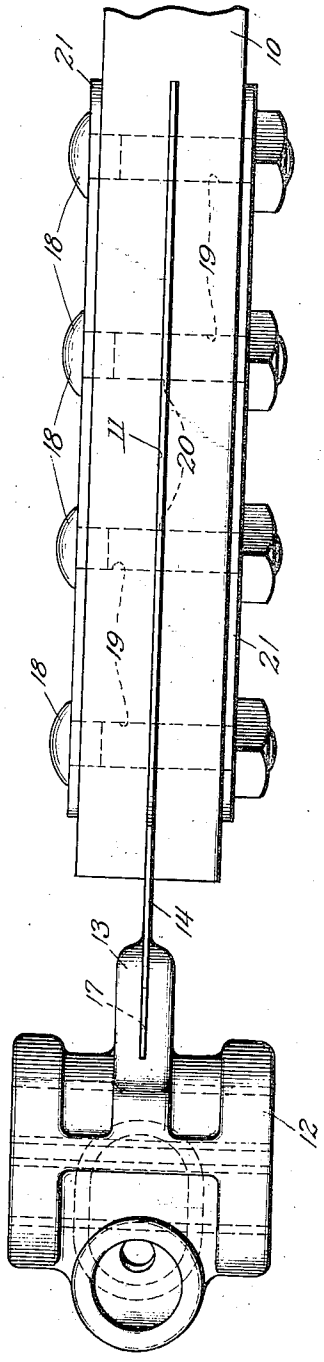


Fig. 1.

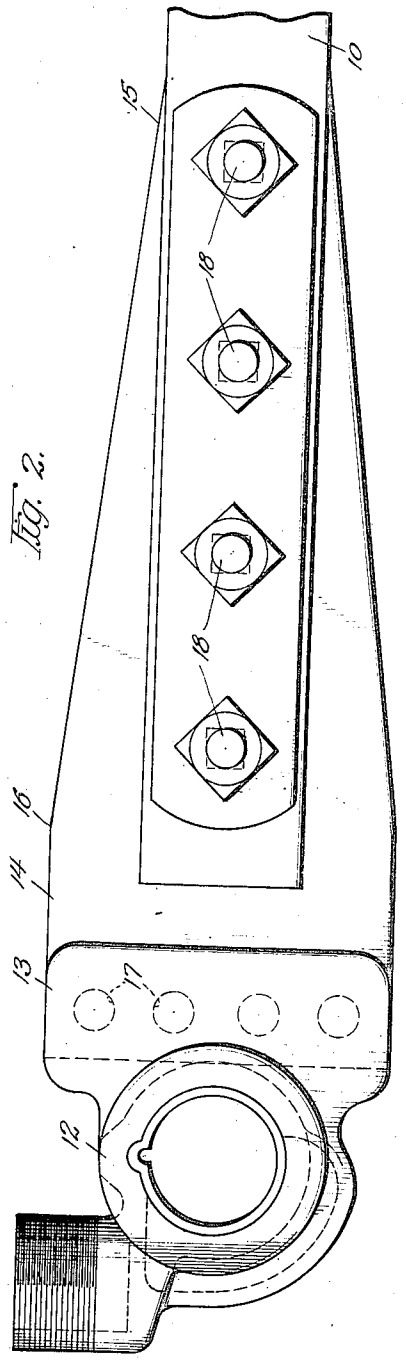


Fig. 2.

Inventor.
Charles Pearson.
Chas. E. Lord Atty.

UNITED STATES PATENT OFFICE.

CHARLES PEARSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO INTERNATIONAL HARVESTER COMPANY, A CORPORATION OF NEW JERSEY.

PITMAN CONNECTION.

1,394,784. Specification of Letters Patent. Patented Oct. 25, 1921.

Application filed February 27, 1919. Serial No. 279,629.

To all whom it may concern:

Be it known that I, CHARLES PEARSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Pitman Connections, of which the following is a full, clear, and exact specification.

This invention relates to pitman connections, and more particularly to pitman connections adapted for mowers and machines of like character.

In mowing machines of the usual construction the cutter bar is provided with what is termed a knife head, and the knife head has a bearing member thereon which is connected by a pitman to a crank pin carried by a crank disk or fly wheel secured to a driving shaft. The crank pin ordinarily extends in a direction parallel to the line of draft of the machine, and the knife or cutter bar in one position of adjustment (or what may be termed its normal position), reciprocates in a direction perpendicular to the line of draft. When these elements are so positioned the usual rigid construction of the pitman connection between the bearing member on the knife head and the crank pin will operate satisfactorily. When, however, the cutter bar is adjusted out of a plane perpendicular to the line of draft—by tilting or by changing the lead of the cutter bar—a rigid connection between the knife and the crank pin will not operate successfully, and the pitman is subjected to severe strains that tend to twist and break it.

The object of the present invention is to overcome this difficulty and to provide a pitman construction that will be flexible and will "give" under strain in certain directions, but will retain its rigid and inflexible qualities under strains in other directions.

In the accompanying drawings I have illustrated one embodiment of my invention, and in these drawings—

Figure 1 is a top plan view or edge view of the upper end of a pitman illustrating my improved construction; and

Fig. 2 is a side elevation of the construction shown in Fig. 1.

In the embodiment of the invention illustrated, the main body 10 of the pitman is formed of wood and is provided with a longitudinal slot 11 extending inwardly from its upper end. A bearing box 12 of the usual construction is utilized, and the particular invention under consideration consists in the connection between the bearing box 12 and the body 10 of the pitman.

The box 12 may be formed of cast iron, and, as cast, this box is provided with an outwardly projecting portion 13 in which is cast one end of the flexible steel strip which connects the body member 10 of the pitman with the bearing box. The connection between the bearing box and the body of the pitman is embodied in a metallic strip 14, preferably formed of flat steel, this strip increasing in width from one end, as shown at 15, to a point adjacent the end of the body 10 of the pitman, as shown at 16. The widened portion of the metallic strip 14, as originally formed, is provided with a series of spaced apertures 17, and the strip 14 is secured to the bearing box by inserting the widened end of the strip in the mold of the bearing box in position, as shown in Fig. 1, in which position the molten iron is poured around the end of the strip and fills in the apertures 17, integrally and rigidly connecting the strip to the bearing box.

The above method of forming this device is purely optional, and any other suitable method of connecting these parts may be substituted, such, for instance, as securing bolts or rivets, which may be passed through the apertures 17. When the strip 14 and the bearing box have been secured together the smaller end of the strip 14 is inserted in the slot 11 of the body 10 of the pitman, and a series of transverse bolts 18 are passed through a series of transverse apertures 19 in the body member 10, and a corresponding series of apertures 20 in the strip 14. If desired, a bearing plate 21 may be secured to each side of the body 10 of the pitman, thereby strengthening the construction.

From the above description it will be seen that a construction has been provided by means of which a lateral flexing of the pitman is permitted, but a flexing at right angles to this direction is prevented. The steel strip 14 is purposely made wider at its end adjacent the bearing box to prevent any flexing in a horizontal plane parallel to the line of draft, whereas any lack of alinement between the crank pin and the knife head is compensated for by the flexible connection.

While I have, in the above specification,

shown and described but one embodiment of my invention, it is to be understood that my invention is capable of many modifications. Changes, therefore, in the construction and arrangement of parts may be made without departing from the spirit and scope of my invention as expressed in the following claims.

What I claim is:

1. A pitman connection including a body member, a bearing box, and a flexible connection therebetween, said bearing box positioned in close proximity to said body member, said connection formed of a flat steel strip having its sides gradually increasing in width and terminating in a wide straight portion thereby distributing the resiliency throughout the entire length of said flexible connection in a direction at right angles to the plane of movement of said pitman.

2. A pitman connection including a body member, a bearing box positioned in close proximity with said body member, and a flexible connection therebetween, said connection formed of a flat steel strip having its sides gradually increasing in width and extending beyond said body member and terminating in a wide straight portion whereby the resiliency is distributed throughout the entire length of said flexible connection.

In testimony whereof I affix my signature.

CHARLES PEARSON.