

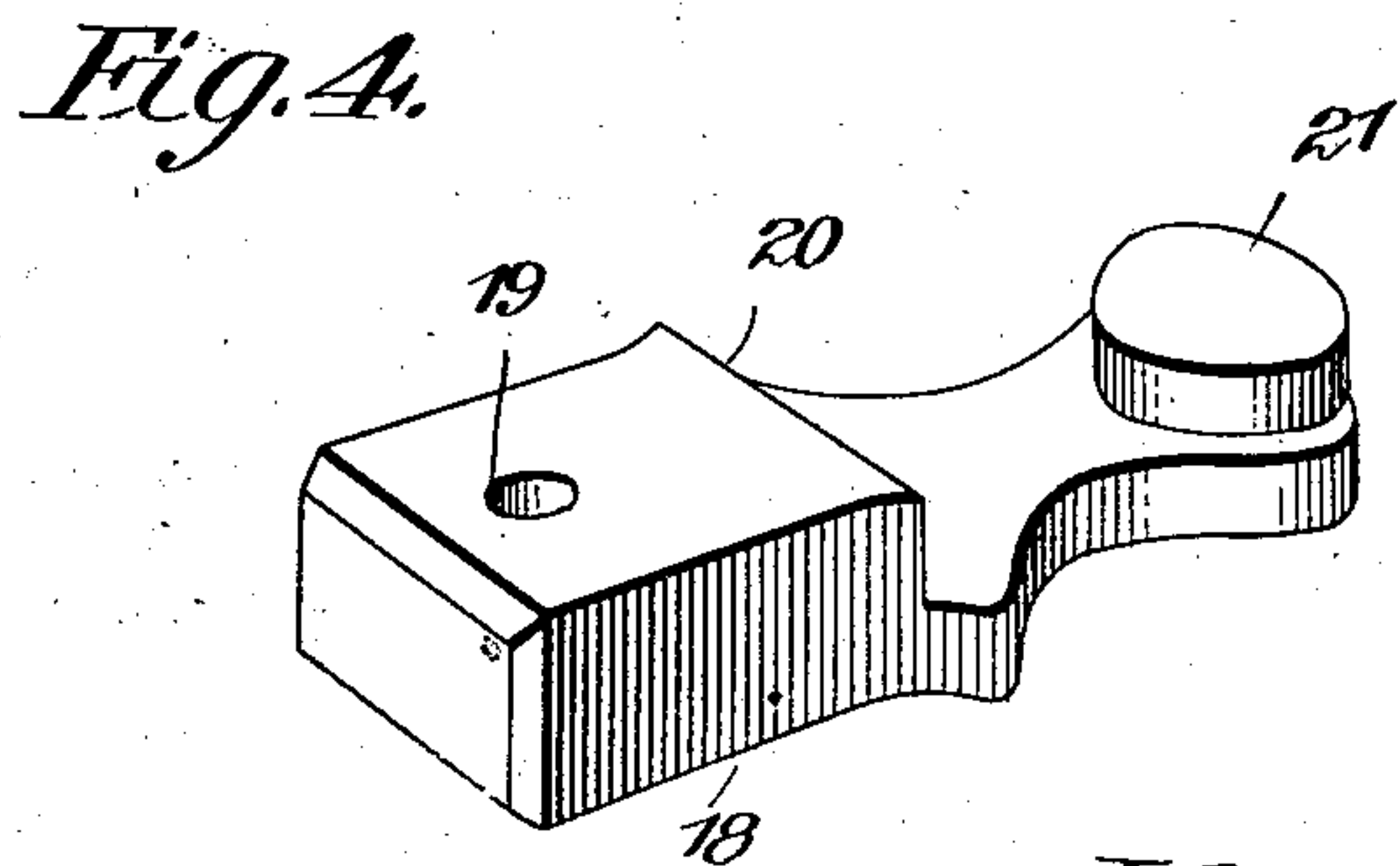
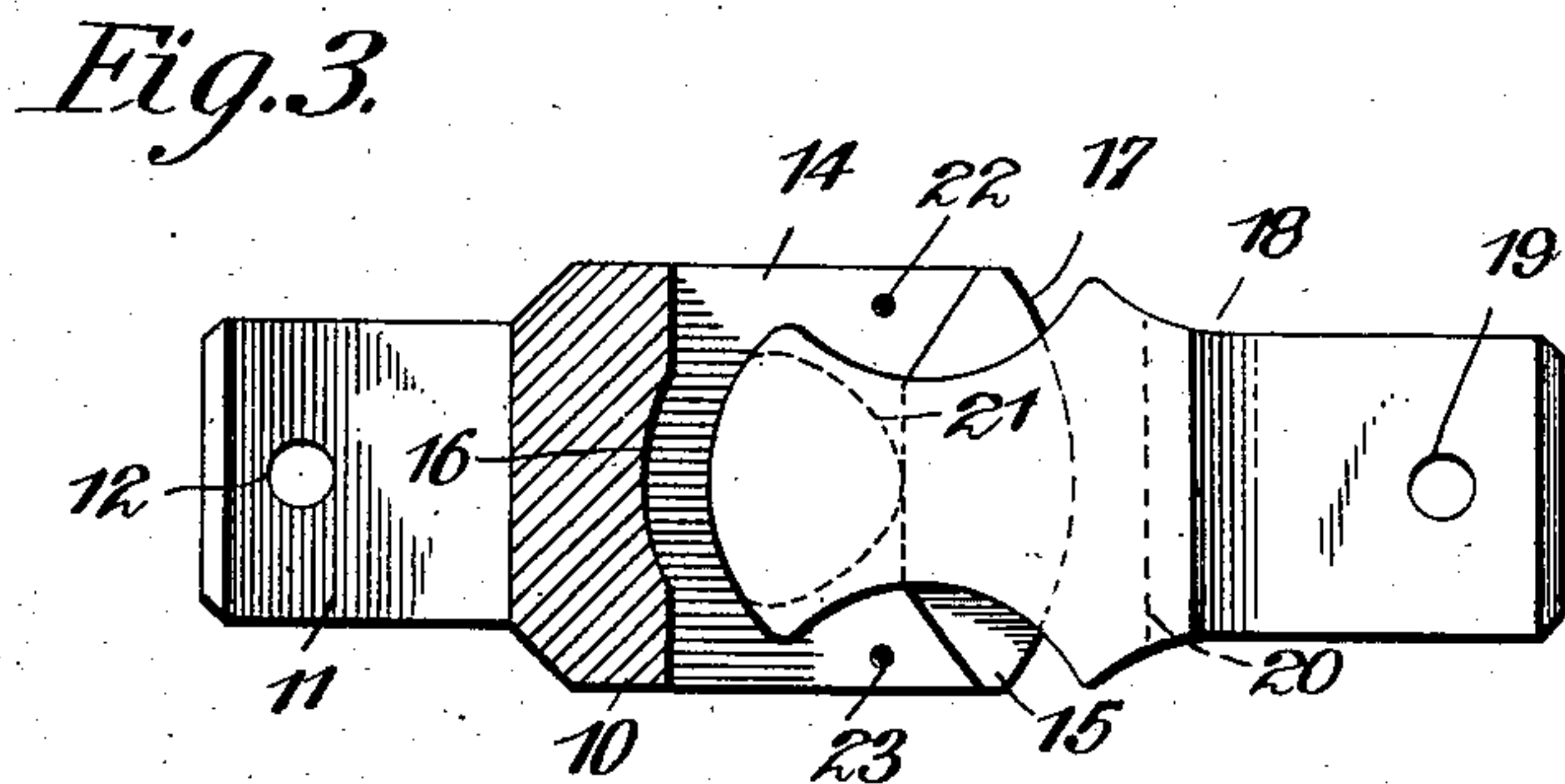
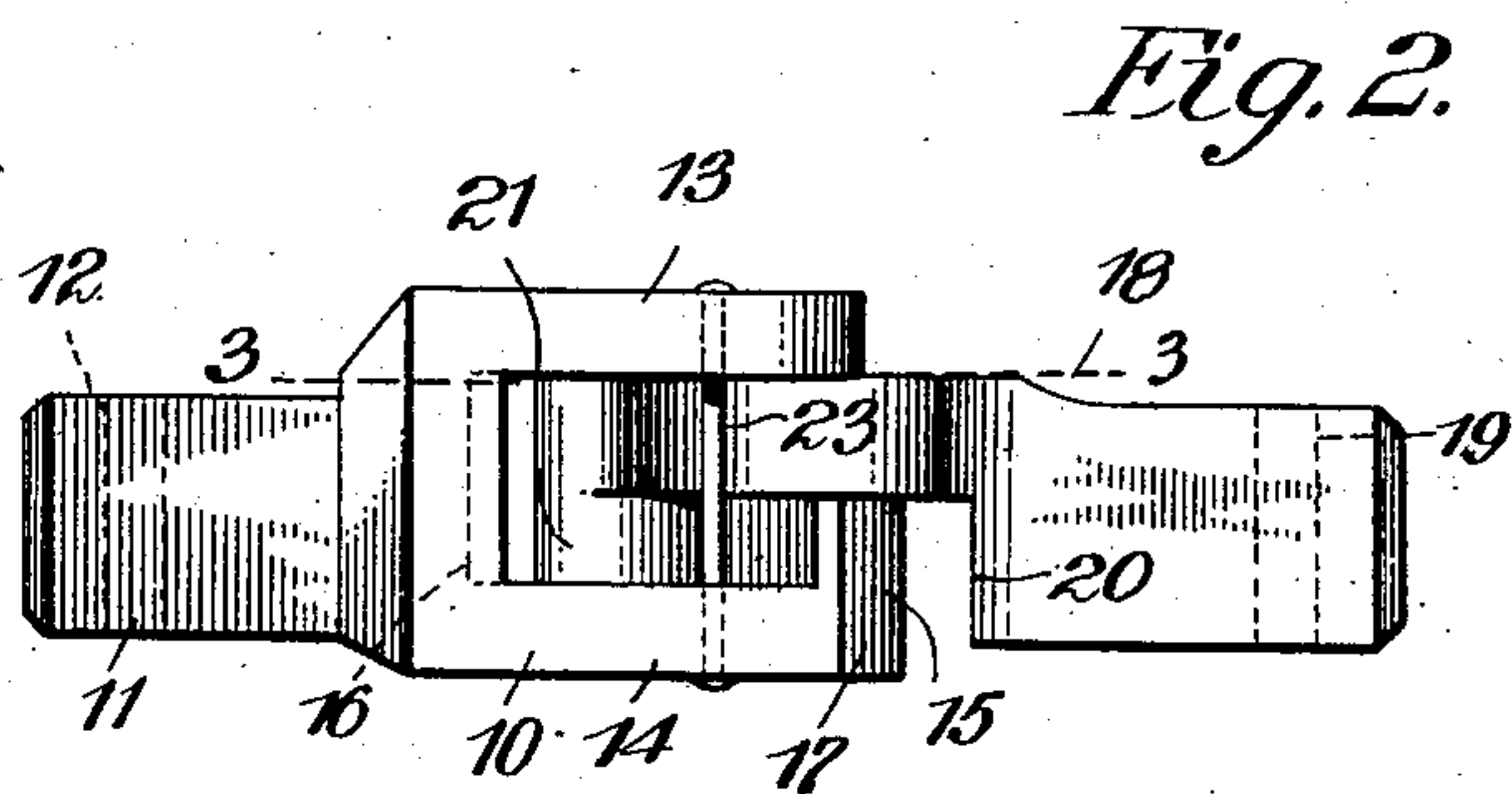
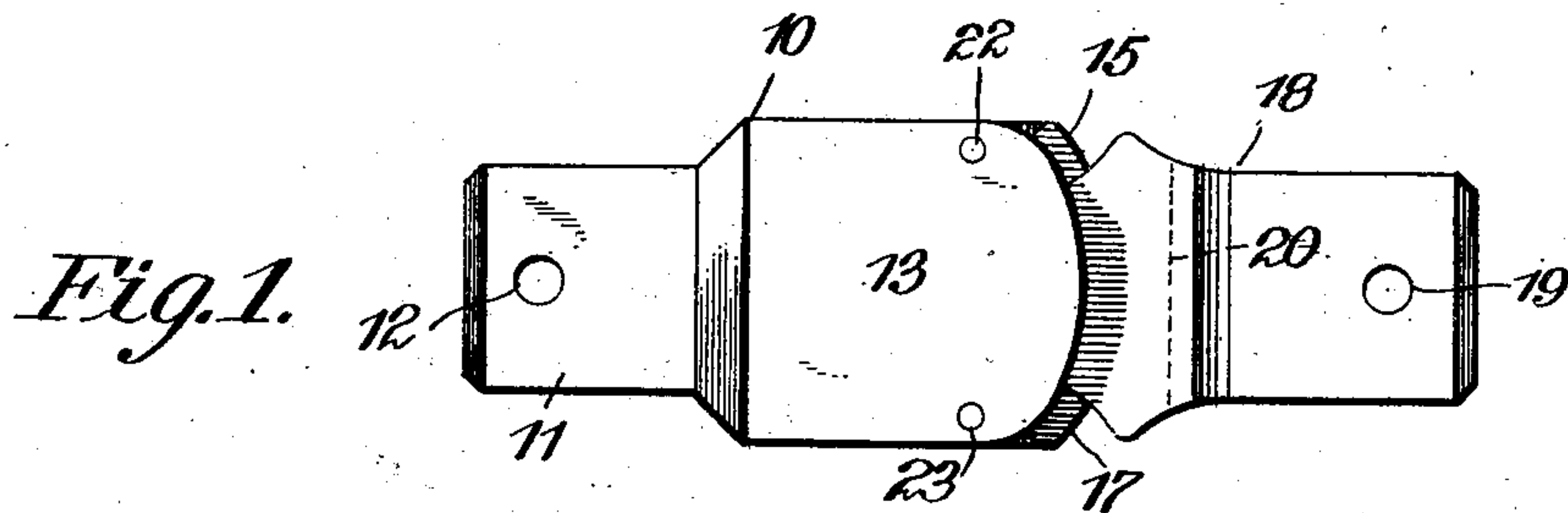
No. 726,197.

PATENTED APR. 21, 1903.

J. SINES.
CAR COUPLING.

APPLICATION FILED FEB. 4, 1903.

NO MODEL.



Witnesses

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by

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UNITED STATES PATENT OFFICE.

JOHN SINES, OF CHARLOE, OHIO, ASSIGNOR OF ONE-HALF TO H. T. KOHN,
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CAR-COUPLING.

SPECIFICATION forming part of Letters Patent No. 726,197, dated April 21, 1903.

Application filed February 4, 1903. Serial No. 141,896. (No model.)

To all whom it may concern:

Be it known that I, JOHN SINES, a citizen of the United States, residing at Charloe, in the county of Paulding and State of Ohio, have
5 invented a new and useful Car-Coupler, of which the following is a specification.

This invention relates to devices for coupling cars, and has for its object to provide a device of this character which will remain
10 intact and hold the cars connected under ordinary conditions, but which will yield under abnormal lateral strains caused by the derailment or other displacement of one or more cars of a train and prevent the displaced
15 cars from derailing the remaining cars; and the invention consists in certain novel features of construction, as hereinafter shown and described, and pointed out in the claims.

In the drawings illustrative of the invention, in which corresponding parts are indicated by like designating characters, Figure 1 is a plan view. Fig. 2 is a side elevation. Fig. 3 is a horizontal section on the line 3 3 of Fig. 2. Fig. 4 is a perspective view of the
25 opposing head member reversed.

The improved device may be employed in connection with any of the ordinary car-couplings now in common use and is intended to be employed at one or more points in the train.

30 In the usual manner of coupling trains if one or more of the cars or the locomotive is derailed the tenacity of the ordinary coupling will cause the cars remaining upon the tracks to be dragged from the rails by the displaced car or other member of the train, and to prevent this is the principal object of the present invention, which consists in a coupling means so constructed that it will be automatically released when subjected to ab-
35 normal lateral strains, such as would occur in event of a derailment, and thus release the derailed car.

The improved device consists of a head member 10, having one end 11 formed to enter any of the usual cavities for the ordinary link or coupling-bar and provided with an aperture 12 to receive the usual coupling-pin. The opposite end of the head 10 is formed with spaced jaw members 13 14, one of which
45 is provided with a rib 15, extending toward the other jaw member, and thus forming a

contracted entrance to the space between the jaw members.

The body of the head between the inner or "root" ends of the jaw members is concaved, 55 as at 16, and the outer end of the jaw member, carrying the rib 15, is curved, as at 17, the curve being concentric to the curve of the concave, as indicated in Fig. 3.

The opposing head member 18 is formed 60 with one end adapted to enter the link or coupling-bar cavity and will be provided with an aperture 19 for a coupling-pin of the usual form. The head member 18 is also formed with a shoulder 20, adapted to en- 65 gage the outer curved surface 17 of the rib 15, and with a depending rib 21, having an outer curved surface substantially concentric to the curve of the concave 16, while the opposite surface of the rib 21 is likewise 70 curved or convex and adapted to engage the inner substantially flat surface of the rib 15 when the head members are distended. By this simple arrangement the two head members may be coupled by passing the rib 21 75 laterally between the jaw members 13 14, and then when the head members are drawn apart the rib 21 will engage the rib 15, and when the movement is reversed or when the cars are "bumped" together the rib 21 will enter the 80 concave 16 and oscillate therein, while the shoulder 20 will likewise "roll" or oscillate upon the outer surface 17 of the rib 15 as the cars sway from side to side.

Connecting the jaw members 13 14 at op- 85 posite sides of the head member 18 are stop-rods 22 23, the rods being spaced far enough apart to permit sufficient lateral movement between the head members to provide for the necessary swaying of the train, but which 90 will prevent abnormal lateral movement. The rods will be of sufficient strength to resist the normal strains to which they will be subjected, but which will break under abnormal strains and release the coupling. Thus 95 while the train is running in the usual manner the couplings will remain intact, as lateral strains will not be very great; but if one or more cars become derailed the abnormal side strains caused thereby will fracture the 100 rods and permit the head members to separate, and thus prevent the derailed car drag-

ging the other cars from the track. By this simple means the train remains intact as long as the cars or locomotive remains upon the track; but in event of one or more cars leaving the track the derailed car will be automatically released and not drag the other cars with it.

The device is very simple in construction, easily applied and operated, and will be very efficient for the purposes described.

Having thus described my invention, what I claim is—

1. A car-coupling consisting of a head having spaced jaw members contracted at their terminals, an opposing head member engaging said contracted portion and provided with an enlarged terminal engaging the space between said jaw members, and rods connecting said jaw members upon opposite sides of said opposing head member, and preventing lateral movement thereof but breakable under abnormal lateral strains to release the opposing jaw member, substantially as described.

2. A car-coupling consisting of a head having spaced jaw members one of which is provided with a rib extending toward the other jaw member, an opposing head member having a rib extending from its extremity and adapted to engage the rib upon said spaced jaw member, and breakable rods connecting said jaw members upon opposite sides of said opposing head member, substantially as described.

3. A car-coupling consisting of a head hav-

ing spaced jaw members and a concave recess between said jaw members at their inner ends and one of said jaw members being provided with a rib extending toward the other jaw member and rounded upon its outer surface concentric to said concave recess, an opposing head member having a shoulder engaging the rounded outer surface of said rib and with a rib upon its extremity having convex surfaces adapted to alternately engage said concave recess and the inner surface of said spaced jaw-rib and breakable rods connecting said spaced jaw members upon opposite sides of said opposing head member, substantially as described.

4. A car-coupling consisting of a head having spaced jaw members contracted at their terminals and adapted to be detachably connected to a car, an opposing head member engaging said contracted portion and having an enlarged terminal engaging the space between said jaw members and adapted to be detachably connected to the next car, and rods connecting said jaw members upon opposite sides of said opposing head member, and breakable under abnormal lateral strains, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN SINES.

Witnesses:

JOHN A. JENKINS,
J. M. MAGEE.