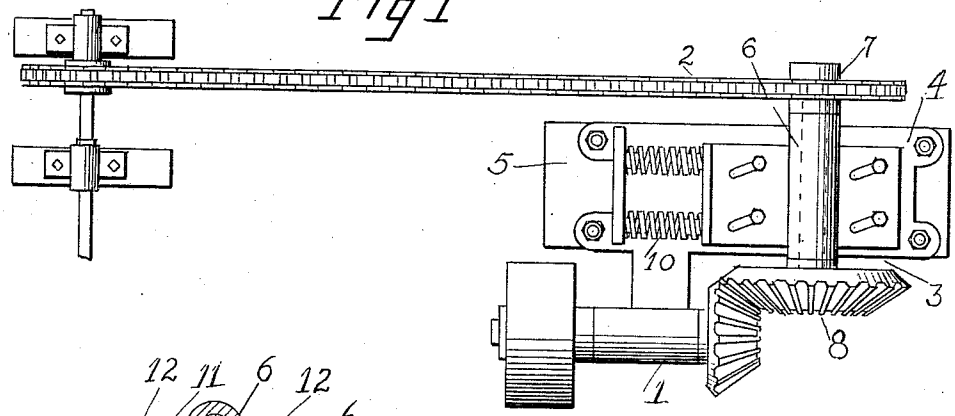
G. A. ANDERSON.

RELEASABLE DRIVING MECHANISM.

APPLICATION FILED OCT. 17, 1912.

1,082,105. Patented Dec. 23, 1913.

Fig 1



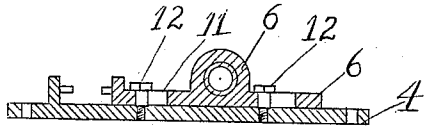


Fig 3

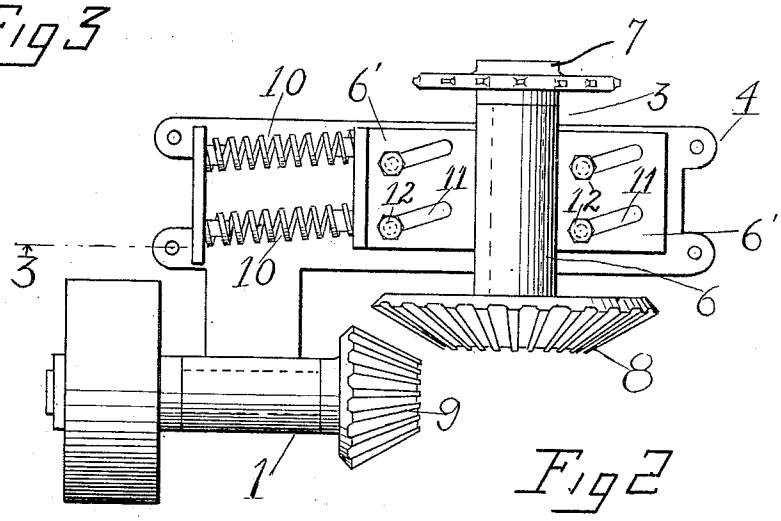


Fig 2

Witnesses
Jas. M. Brooks.
Harrison M. Brooke

Inventor
George A. Anderson.
Stephen A. Brooks
Attorney

UNITED STATES PATENT OFFICE.

GEORGE A. ANDERSON, OF BOTHELL, WASHINGTON.

RELEASABLE DRIVING MECHANISM.

1,082,105. Specification of Letters Patent. Patented Dec. 23, 1913.

Application filed October 17, 1912. Serial No. 726,264.

To all whom it may concern:

Be it known that I, GEORGE A. ANDERSON, a citizen of the United States of America, and a resident of the city of Bothell, in the county of King and State of Washington, have invented certain new and useful Improvements in Releasable Driving Mechanism, of which the following is a specification.

The primary object of my invention is to provide an efficient connection of the above character which will act automatically to disconnect the driving and driven mechanisms.

Other objects will be set forth as the description progresses, and the scope of my invention set forth in the claims hereto annexed.

Referring now to the accompanying drawing, in which like numerals of reference indicate like parts throughout: Figure 1 is a plan view of suitable mechanism in which a releasable driving mechanism, embodying my invention, is employed. Fig. 2 is a similar view on enlarged scale, with the driven mechanism removed, and illustrating the releasable mechanism as having been released from the drive mechanism, and Fig. 3 is a section taken on line 3—3 of Fig. 2.

Referring now to the drawing by numerals of reference, 1 and 2 indicate the drive and driven mechanisms respectively and 3 indicates the releasable mechanism, through the medium of which, power is transmitted to the driven mechanism.

Mechanism 3 which comprises a shaft journaled in a bearing 6, and provided with a sprocket wheel 7 and a bevel gear 8 is slidably supported for movement, toward and from a releasing position, on a plate 4, secured to a suitable foundation 5 (see Fig. 1).

The driven mechanism as now considered, consists of an endless chain, which passing over sprocket wheel 7, holds the releasable mechanism against the tension of springs 10, with its bevel gear 8 in mesh with a similar gear 9 of the drive mechanism.

Bearing 6 is provided with opposite flanges 6′, formed with cam slots 11 through which headed studs or pins 12, fixed to plate 4, project.

By this construction, upon breaking of the driven mechanism, the releasable mechanism in being moved by springs 10, is forced laterally thereby effecting disengagement of gears 8 and 9. Under ordinary conditions, the chain 2, when broken, would jam between either of the sprockets and the adjacent supporting frame portion thereby distorting the chain and the surrounding parts. In the present construction, power being thus promptly cut off from the driven mechanism, injury to life as well as to the machinery itself will obviously be prevented.

While I have herein illustrated an embodiment of my invention which will carry out the functions assigned thereto, I do not wish to be understood as limiting myself except as indicated in my claims.

Having thus described my invention what I claim as new, and desire to secure by Letters Patent of the United States of America, is:—

1. In combination with a drive mechanism, a releasable driving mechanism, supported for movement toward and from said drive mechanism, and endless flexible means connected to receive power from said driving mechanism and hold said driving mechanism in its operative position, and resilient means tending to force said driving mechanism to a releasing position.

2. In a device of the character described, a drive shaft, a gear thereon, a driving mechanism slidably supported, a gear on said driving mechanism normally in mesh with said first named gear, a chain, a sprocket wheel on said driving mechanism over which said chain passes, and springs tending to force said driving mechanism from said drive shaft, for the purpose specified.

3. In a device of the character described, a drive shaft, a gear thereon, a bearing slidably supported and provided with cam slots, fixed pins projecting through the slots of said bearing, a shaft journaled in said bearing, a gear on said shaft normally in mesh with said first named gear, a sprocket wheel on said last named shaft, means tending to slide said bearing so as to disengage said gears, and a chain passing over said sprocket wheel and thereby holding said last named gear in mesh with said first named gear.

4. In combination with drive and driven mechanisms, a releasable driving mechanism therebetween, a support on which said releasable driving mechanism is mounted for movement toward and from said drive mechanism, said driven mechanism retaining the driving mechanism in its operative position,

and means interposed between the support and the releasable driving mechanism for moving the latter to a releasing position when released by said driven mechanism.

5. In combination with drive and driven mechanisms, a releasable driving mechanism therebetween slidably supported for movement toward and from said drive mechanism and being held in its operative position against sliding by said driven mechanism.

Signed at Seattle, Washington, this 8th day of October, 1912.

GEORGE A. ANDERSON.

Witnesses:
EDWIN C. EWING,
E. ARLITA ADAMS.