

No. 702,273.

Patented June 10, 1902.

A. M. ACKLIN.
CONVEYER BELT APPARATUS.

(Application filed Jan. 6, 1902.)

(No Model.)

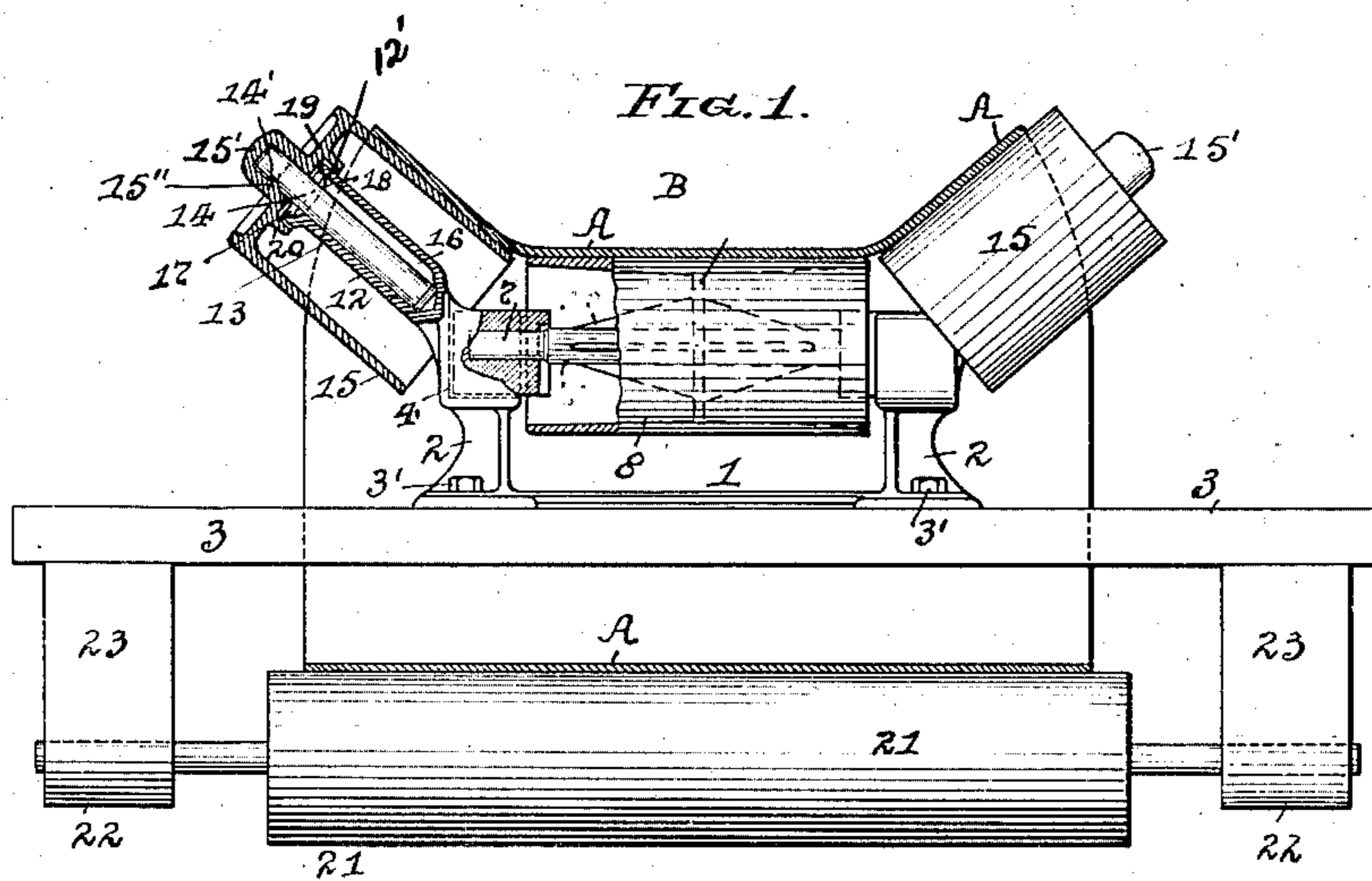
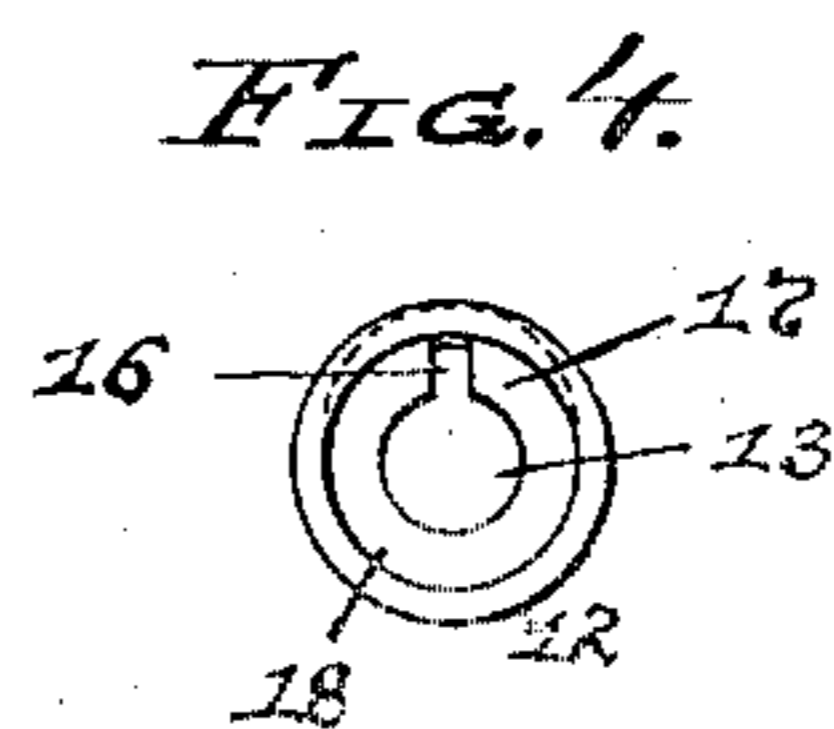
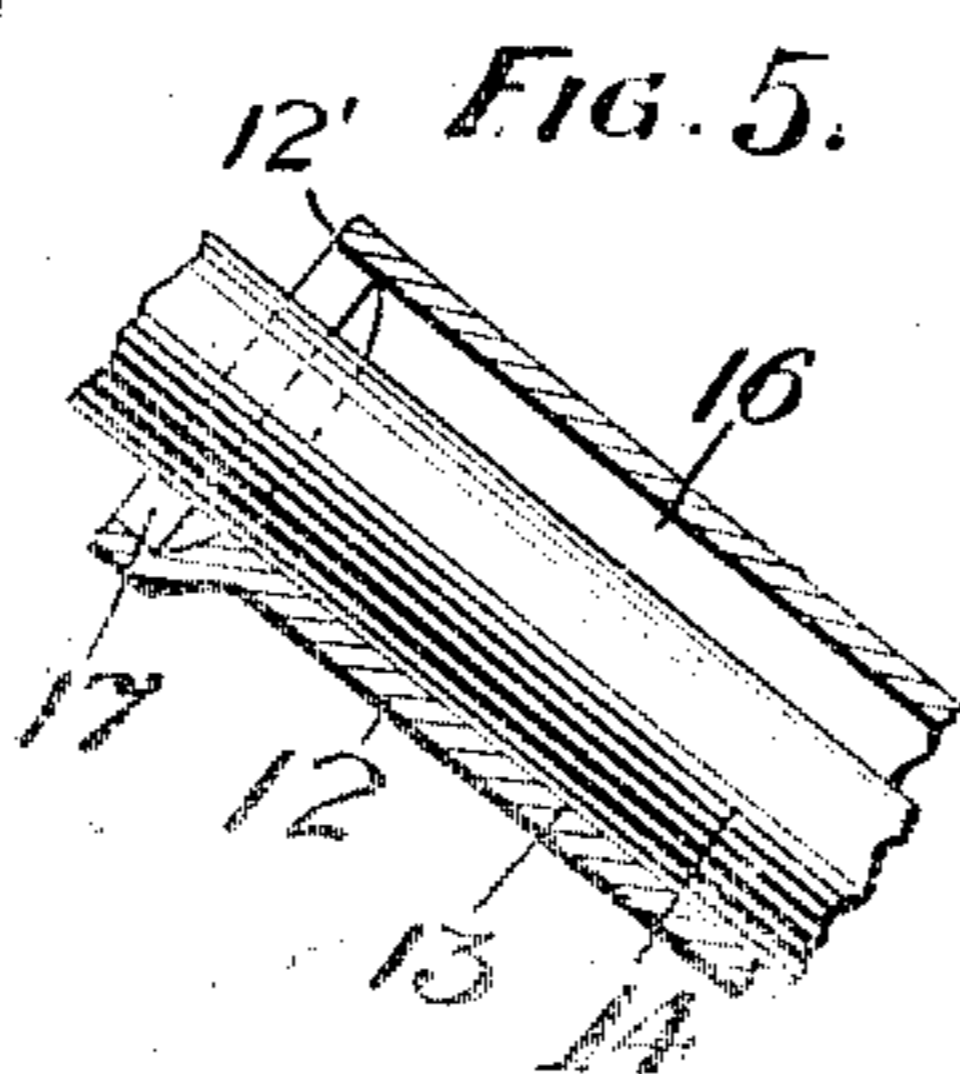
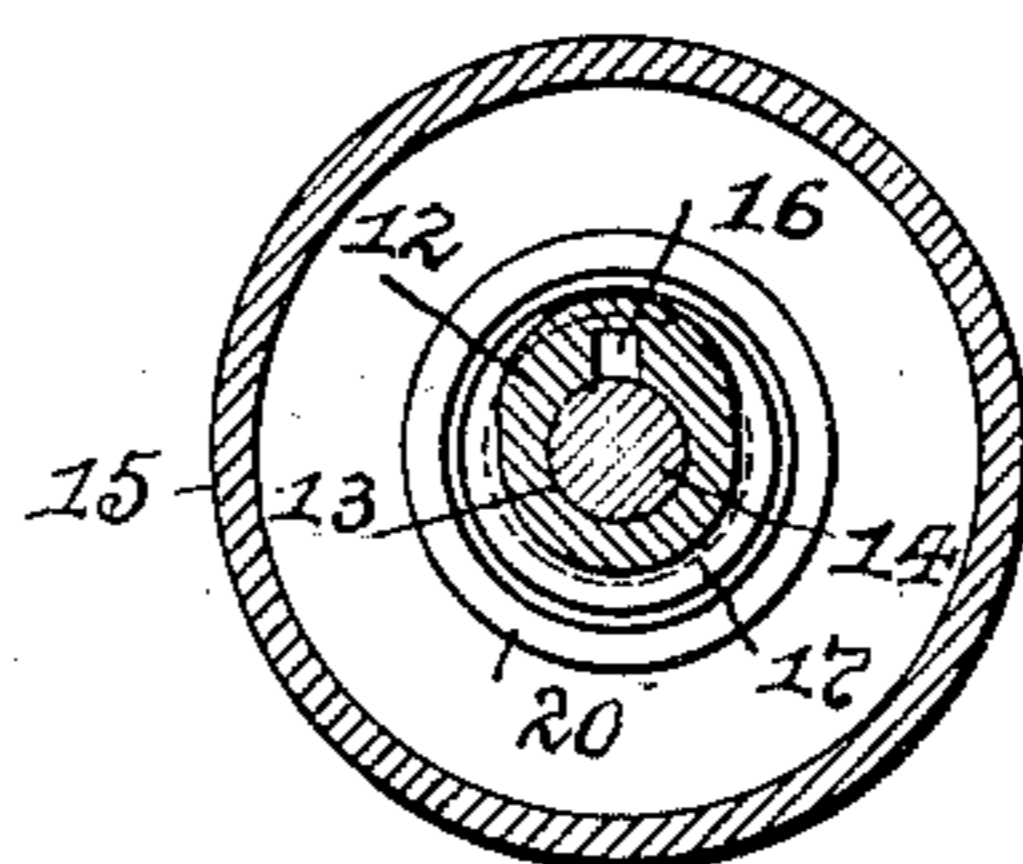
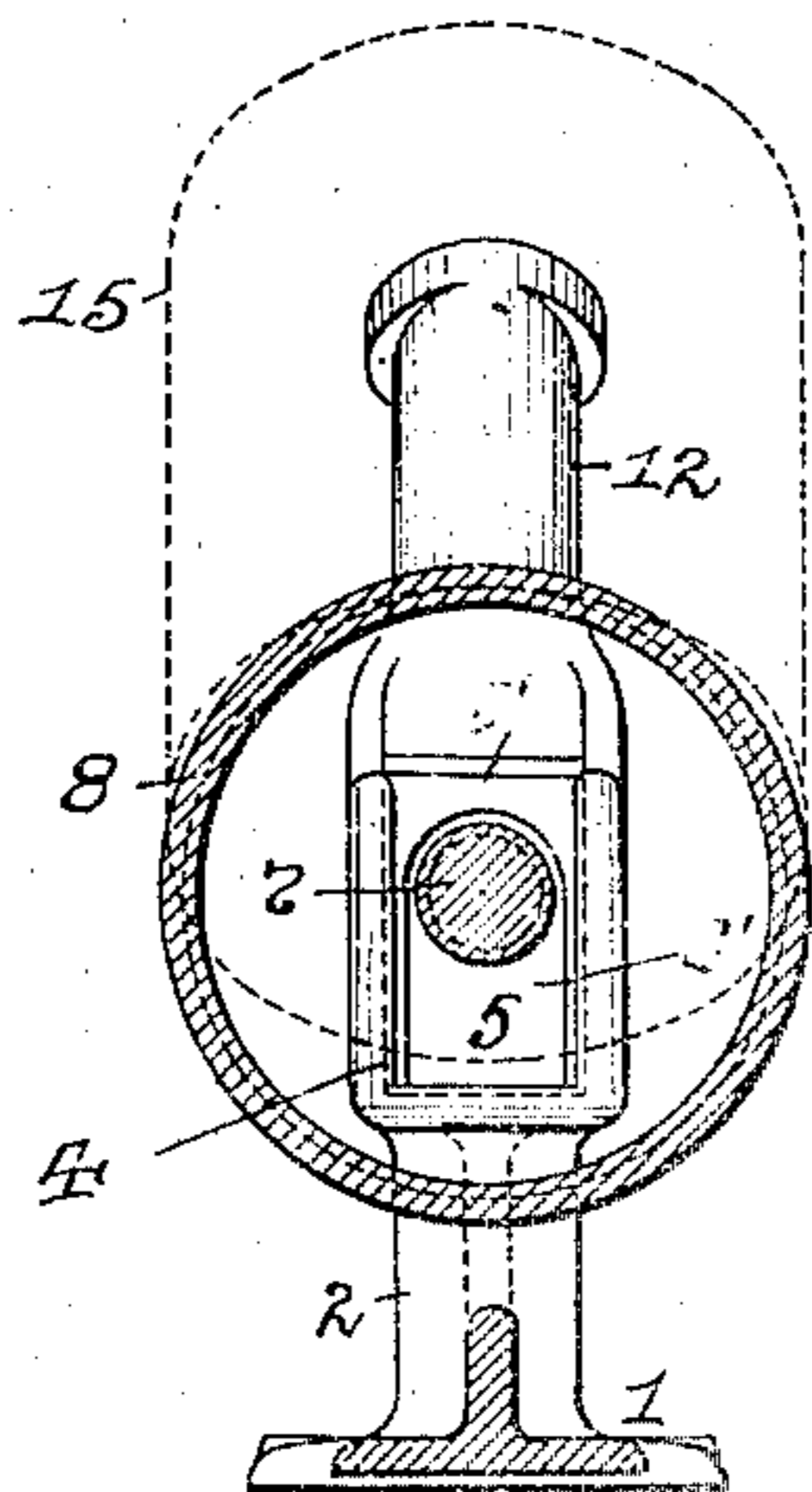


FIG. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALFRED M. ACKLIN, OF PITTSBURG, PENNSYLVANIA.

CONVEYER-BELT APPARATUS.

SPECIFICATION forming part of Letters Patent No. 702,273, dated June 10, 1902.

Application filed January 6, 1902. Serial No. 88,476. (No model.)

To all whom it may concern:

Be it known that I, ALFRED M. ACKLIN, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Conveyer-Belt Apparatus; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to conveyer-belt apparatus, and has special reference to the carrying-pulleys upon which the conveyer-belt is run to form the trough.

The object of my invention is to provide a simple means for mounting the pulleys in their supports, produce less friction to the working parts, and enable the parts to be well lubricated at all times.

My invention consists, generally stated, in the novel arrangement, construction, and combination of parts, as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use my improved conveyer-belt apparatus, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 shows an end view, partly in section, of the conveyer-belt apparatus with the pulleys and their support and showing the manner of carrying the belt. Fig. 2 is a cross-section through the support. Fig. 3 is a cross-section through one of the inclined supports. Fig. 4 is an end view of the inclined support, and Fig. 5 is an enlarged detail view of a portion of the inclined support.

Like characters herein indicate like parts in each of the figures of the drawings.

As illustrated in the drawings, 1 represents the main support, which is provided with the vertical brackets or standards 2 and is secured to a transverse plank 3 by means of bolts 3'. The standards 2 are each provided with a seat 4 for the bearing-block 5, and a shaft 7, carrying the pulley 8, is mounted within these blocks 5.

Projecting outwardly from the standards 2 are angular or inclined supports 12, which are provided with the sockets or openings 13 therein for the reception of the shafts 14 on the side pulleys 15, and an oil-slot 16 is formed within each support 12 at one side of the

shafts 14, which opens into an angular space 17 at the outer end 12' of the inclined supports 12 and is provided with the inclined bottom 18, extending downward toward the shafts 14. The side pulleys 15 are cast around the shafts 14 and form the hubs 15', fitting over the outer ends of said shafts 14 and connecting the web portion 19 on said pulleys, and such shafts are provided with a recess 14' therein for the reception of a bead 15" on said caps 15' to assist in holding such shafts in place within the pulleys 15, while a sleeve or collar 20 is formed on the web portion 19, which fits over and around the outer end 12' of the angular or inclined supports 12 to prevent any dirt or dust from dropping around the shafts 14.

The conveyer-belt A passes over the pulleys 8 and 15 to form a trough B for conveying the material, and such belt A is carried back by means of rollers 21, mounted in bearings 22, hung from the plank 3 by means of the stringers 23.

The use and operation of my improved conveyer-belt apparatus is as follows: The belt A is moved by any suitable means, and such belt is curved or bent to form the trough B by means of the side pulleys 15, extending up at an angle or incline from the angular or inclined supports 12 on the standards 2. The material to be carried by the belt A is fed to the trough B thereof in any suitable manner, and such belt A will act to revolve the pulleys 8 and 15 in passing over the same, while the return portion of said belt A will be carried back by the rollers 21. Oil is placed within the openings 13 in the inclined supports 12 when needed to a sufficient height, and the shafts 14 on the pulleys 15 are inserted into such openings 13, which will cause such oil to move along up said shafts 14 through the slots 16 to lubricate said shafts, and in case any oil is worked along up said shafts 14 to the outer end 12' of the inclined supports 12 it will be caught in the annular space 17, formed in such outer ends 12', and be prevented from dropping or wasting.

It will thus be seen that my improved conveyer-belt apparatus is cheap and simple in its construction and operation and by its use the wear to the parts, loss of power, and expense of running are reduced to a minimum.

The parts can be easily removed and replaced for repairing or for new parts when desired, and all the parts can be kept well lubricated at all times, while the lubricating material
5 can be so confined as to prevent dropping or wasting.

It will be evident that my improved pulley or roller supports can be used on vertical as well as inclined standards and for other purposes than that of carrying material by means
10 of a trough-shaped bolt engaging therewith, that other parts than pulleys can be used on the apparatus—such as idlers, rollers, wheels, &c.—and that various other modifications in
15 the construction and design of the various parts of the apparatus may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

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

1. In a support for a conveyer-belt, the combination of inclined standards having sockets or openings therein the lower ends of which are closed, shafts adapted to fit within said
25 sockets or openings and be solely sustained by the same, and pulleys, wheels or rollers fitting around said shafts.

2. In a support for a conveyer-belt, the combination of inclined standards having sockets
30 or openings therein the lower ends of which are closed, shafts adapted to fit within said sockets or openings and be solely sustained by the same, and pulleys, wheels or rollers secured to said shafts.

3. In a support for a conveyer-belt, the combination of inclined standards having sockets or openings therein the lower ends of which are closed, said standards being provided with
35 slots communicating with said sockets or openings, shafts adapted to fit within said sockets or openings and be solely sustained by the same, said shafts engaging with said
40 slots, and pulleys, wheels or rollers fitting around said shafts.

4. In a support for a conveyer-belt, the combination of inclined standards having sockets
45 or openings therein the lower ends of which are closed, said standards being provided with

slots communicating with said sockets or openings, shafts adapted to fit within said
50 sockets or openings and be solely sustained by the same, said shafts engaging with said slots, and pulleys, wheels or rollers secured to said shafts.

5. In a support for a conveyer-belt, the combination of inclined standards having sockets or openings therein the lower ends of which are closed, said standards provided with recesses on the outer ends thereof, shafts adapted to fit within said sockets or openings, and
60 pulleys, wheels or rollers fitting around said shafts.

6. In a support for a conveyer-belt, the combination of inclined standards having sockets or openings therein the lower ends of which
65 are closed, said standards provided with recesses on the outer ends thereof, shafts adapted to fit within said sockets or openings, and pulleys, wheels or rollers secured to said shafts.

7. In a support for a conveyer-belt, the combination of inclined standards having sockets or openings therein the lower ends of which are closed, said standards provided with slots communicating with said sockets or openings
75 and leading into recesses on the outer ends of said standards, shafts adapted to fit within said sockets or openings and be solely sustained by the same, and pulleys, wheels or rollers fitting around said shafts.

8. In a support for a conveyer-belt, the combination of inclined standards having sockets or openings therein the lower ends of which are closed, said standards provided with slots communicating with said sockets or openings
85 and leading into recesses on the outer ends of said standards, shafts adapted to fit within said sockets or openings and be solely sustained by the same, and pulleys, wheels or rollers secured to said shafts.

In testimony whereof I, the said ALFRED M. ACKLIN, have hereunto set my hand.

ALFRED M. ACKLIN.

Witnesses:

J. N. COOKE,

J. L. TREFALLER, Jr.