No. 851,021. PATENTED APR. 23, 1907.

J. S. MURRAY.

BOOK STOCK CARRIER.

APPLICATION FILED APR. 26, 1906.

Fig. 1.

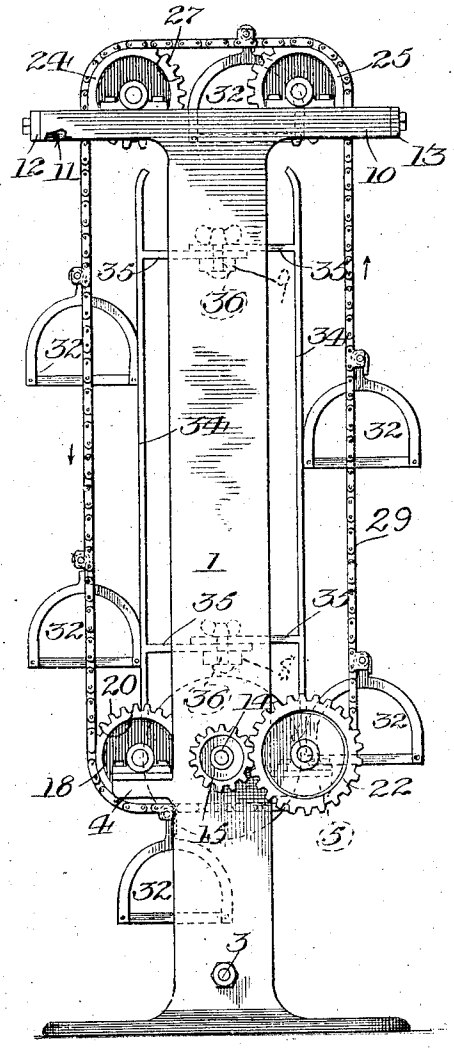


Fig. 2.

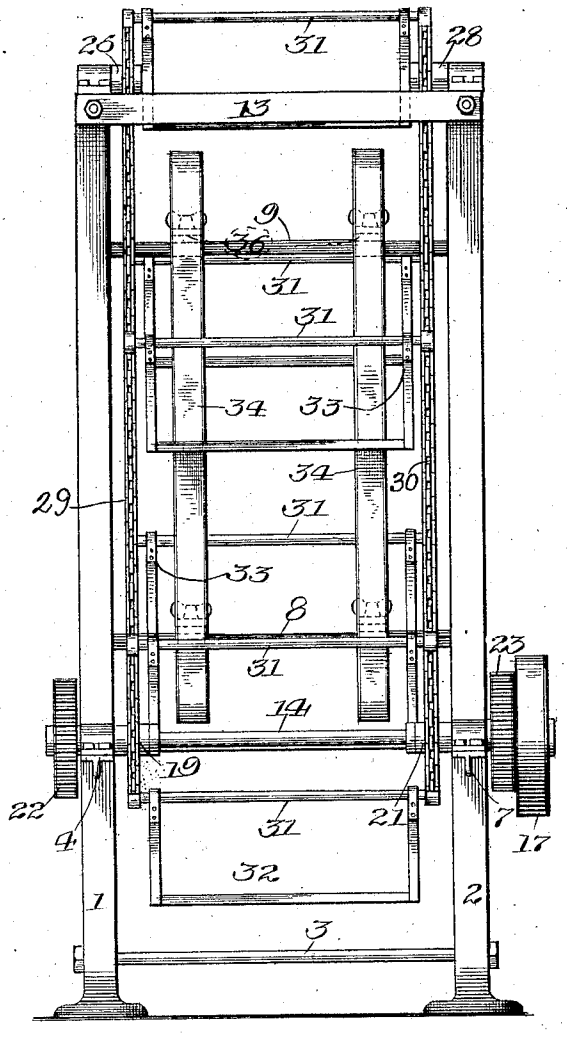


Fig. 4.

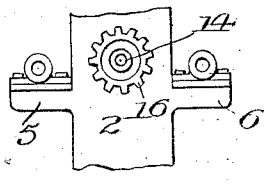


Fig. 3.

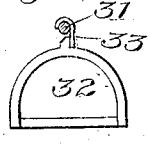


Fig. 5

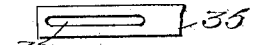


Fig. 6.

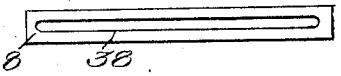
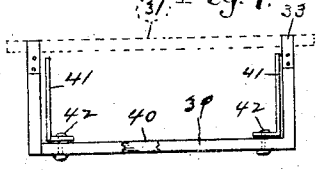


Fig. 7.



Witnesses:
O. M. Mennick
Arthur C. Phillips

Inventor:
John S. Murray
per O. K. Hugo
Atty.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN S. MURRAY, OF CHICAGO, ILLINOIS.

BOOK-STOCK CARRIER.

No. 851,021. Specification of Letters Patent. Patented April 23, 1907.

Application filed April 26, 1906. Serial No. 313,731.

To all whom it may concern:

Be it known that I, JOHN S. MURRAY, 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 Book-Stock Carriers, of which the following is a specification.

My invention relates to improvements in book-stock carriers; and the object of my improvements is to provide a machine having endless-chain belts mounted on sprocket-wheels and provided with removable carriages for carrying printed stock for making up books.

In the drawings, Figure 1 is a side elevation view of my machine; Fig. 2, a view of the right-hand side of Fig. 1; Fig. 3, an end view of one of the carriages detached from the belts; Fig. 4, a fragmentary view of one of the vertical frames; Fig. 5, a top plan view of one of the guard-arms, and Fig. 6 a top plan view of one of the girders; Fig. 7, a side elevation view of a carriage of modified construction.

Referring to the drawings in detail, the reference-numerals 1 and 2 represent vertical twin frames connected at their lower ends by a rod 3 and provided, respectively, on their edges and near their lower ends with brackets 4 5 and 6 7 and connected between their ends by two slotted girders 8 and 9 and provided, respectively, at their upper ends with heads 10 and 11, having their outer ends connected by plates 12 and 13.

Mounted in the frames 1 and 2 is a shaft 14, having secured on one end a pinion 15 and provided on its opposite end with a pinion 16 and a pulley 17.

Mounted, respectively, on the brackets 4 5 and 6 7 are four sprocket-pulleys 18 19 and 20 21.

Secured, respectively, on the outer ends of the axles of the sprocket-pulleys 19 21 are two gears 22 23, meshing, respectively, with the pinions 15 16.

Mounted, respectively, on the heads 10 and 11 are four sprocket-pulleys 24 25 and 26 27.

Mounted, respectively, on the sprocket-pulleys 18 19 24 25 and 20 21 27 28 are two link chain-belts 29 and 30, connected by rods 31, each carrying a removable carriage 32, having two hooks 33 for connecting it with one of the rods 31. The number of said rods 31 and carriages 32 may be increased or diminished as necessity requires.

Arranged within the machine are four adjustable guards or guide-rails 34, having slotted arms 35, supported on and secured to the girders 8 9 by bolts 36, arranged in the slots 37 and 38 in the arms 35 and girders 8 9, respectively.

The operation of the above-described machine is as follows: If the printed stock for a book consists of six sections of twenty-four pages each, or one hundred and forty-four pages in all, then one carriage is loaded with the sections containing pages 1 to 24, another with the sections containing pages 25 to 48, another with the sections containing pages 49 to 72, and so on in regular order until all the carriages are filled. If there are more than six sections of the book, then there should be an equal number of carriages. The pulley 17 is then connected by a belt with a power-pulley and the machine set in motion by the attendant, who stands in front of the machine and removes one section at a time from each carriage as they pass and lays them in piles in regular order with reference to the pages ready for the bindery. The book-sections may, if desired, be gathered by automatic mechanical means.

As certain changes of construction might be made in my machine without departing from the spirit of my invention, I do not wish to be confined to the specific construction herein shown and described.

In the carriage of modified construction shown in Fig. 7, 39 represents the carriage-bottom, having a longitudinal slot 40, and 41 41 guards slidably secured to the carriage-bottom 39 by bolts 42, slidably arranged in the slot 40. These guards are adapted to be shifted longitudinally on the carriage to fit any size of book stock.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a carrier of the class described, a suitable support comprising two vertical frames, a set of four bearings mounted on each of said frames, a stud-shaft rotatably arranged in each of said bearings, a sprocket-wheel secured on the inner end of each one of said stud-shafts, a sprocket-chain mounted on each set of sprocket-wheels, rods connecting

said chains, cages having hooks removably connected with said rods, gear-wheels mounted on two of the stud-shafts on each frame, a main shaft rotatably mounted in said frames, two gear-wheels secured on said main shaft and respectively engaging said first-named gears, and means for rotating the main shaft.

2. In a carrier of the class described, a suitable support comprising twin frames connected by two girders each having therein a longitudinal slot, a set of four pulleys mounted on each of said frames, a belt arranged on each set of pulleys, rods connecting the belts, carriages having bails provided with hooks for removably connecting the carriages with said rods, vertical guide-rails arranged on each side of the girders and each provided with slotted arms slidably secured on the girders by bolts arranged in the slots in the arms and girders, and means for causing the belts to move in the same direction with equal velocity.

3. In a carrier of the class described, a suitable support comprising twin frames, a set of four pulleys mounted on each of said frames, means for rotating one of the pulleys in each set, a belt arranged on each set of pulleys, rods connecting the belts, carriages removably connected with and carried by said rods and each provided in its bottom with a longitudinal slot, and two adjustable guards mounted on each carriage and secured thereto by bolts slidably arranged in said slot.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN S. MURRAY.

Witnesses:
O. K. TREGO,
BYRAN E. FISH.