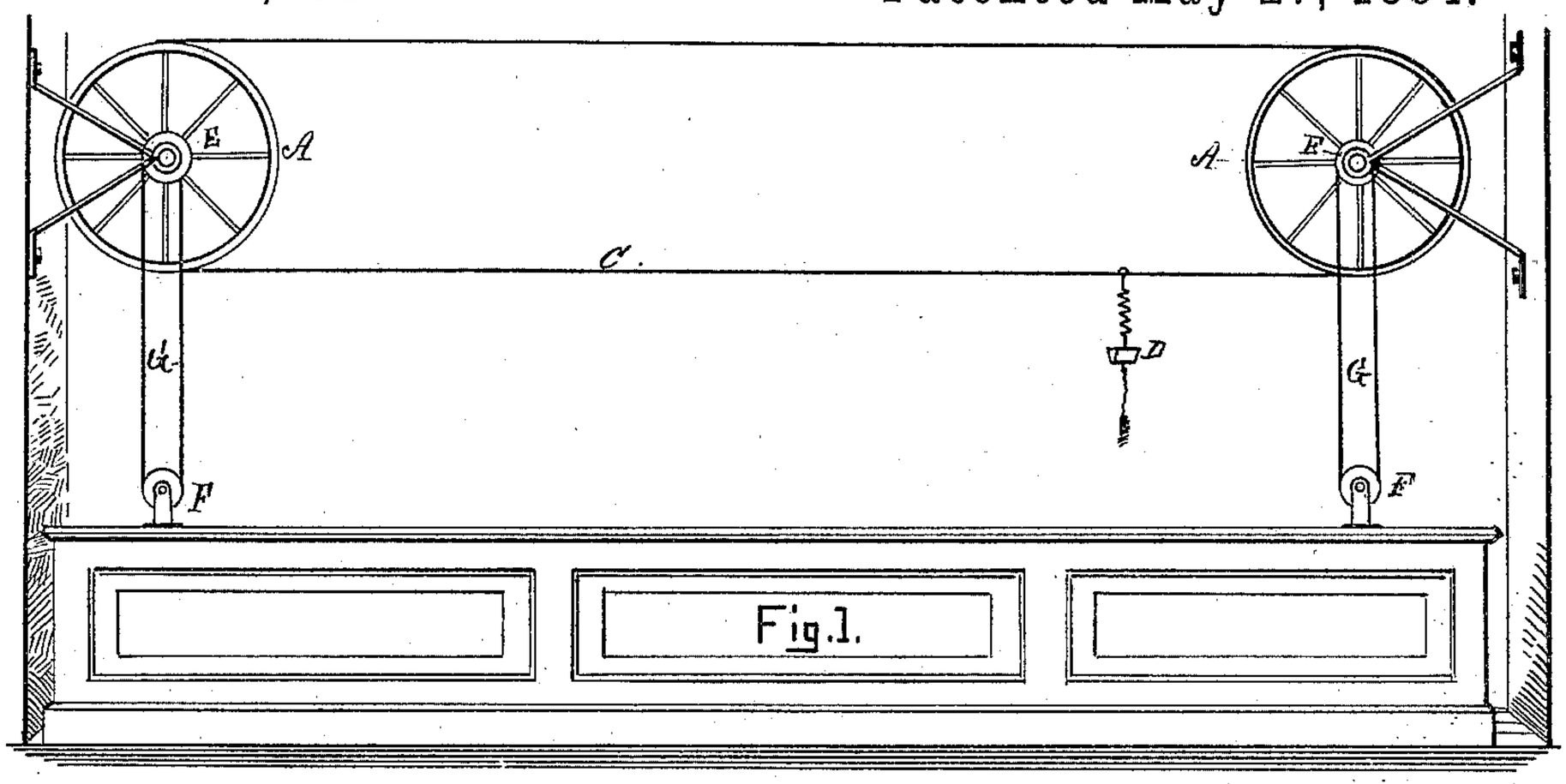
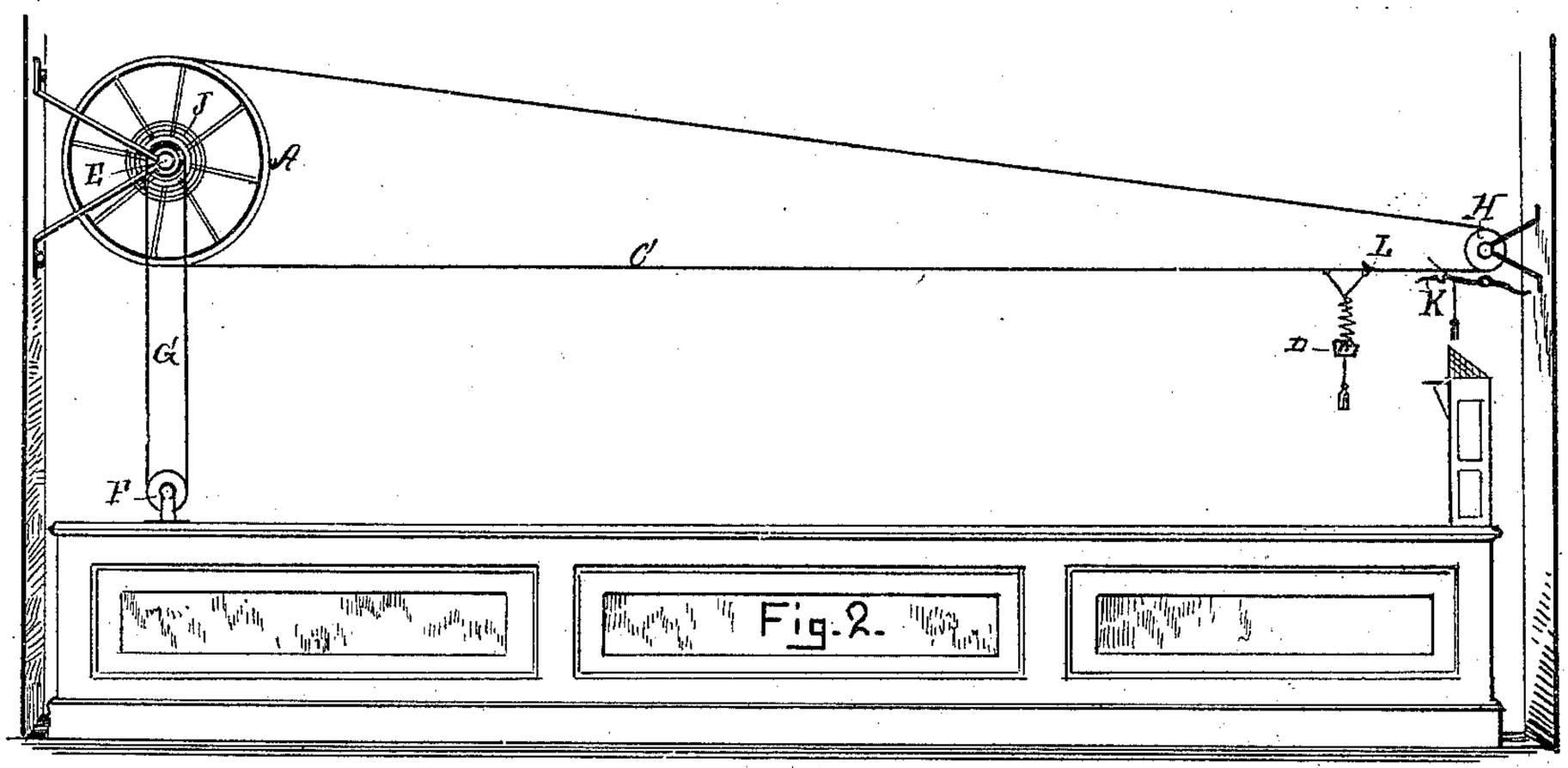
(No Model.) 2 Sheets—Sheet 1.

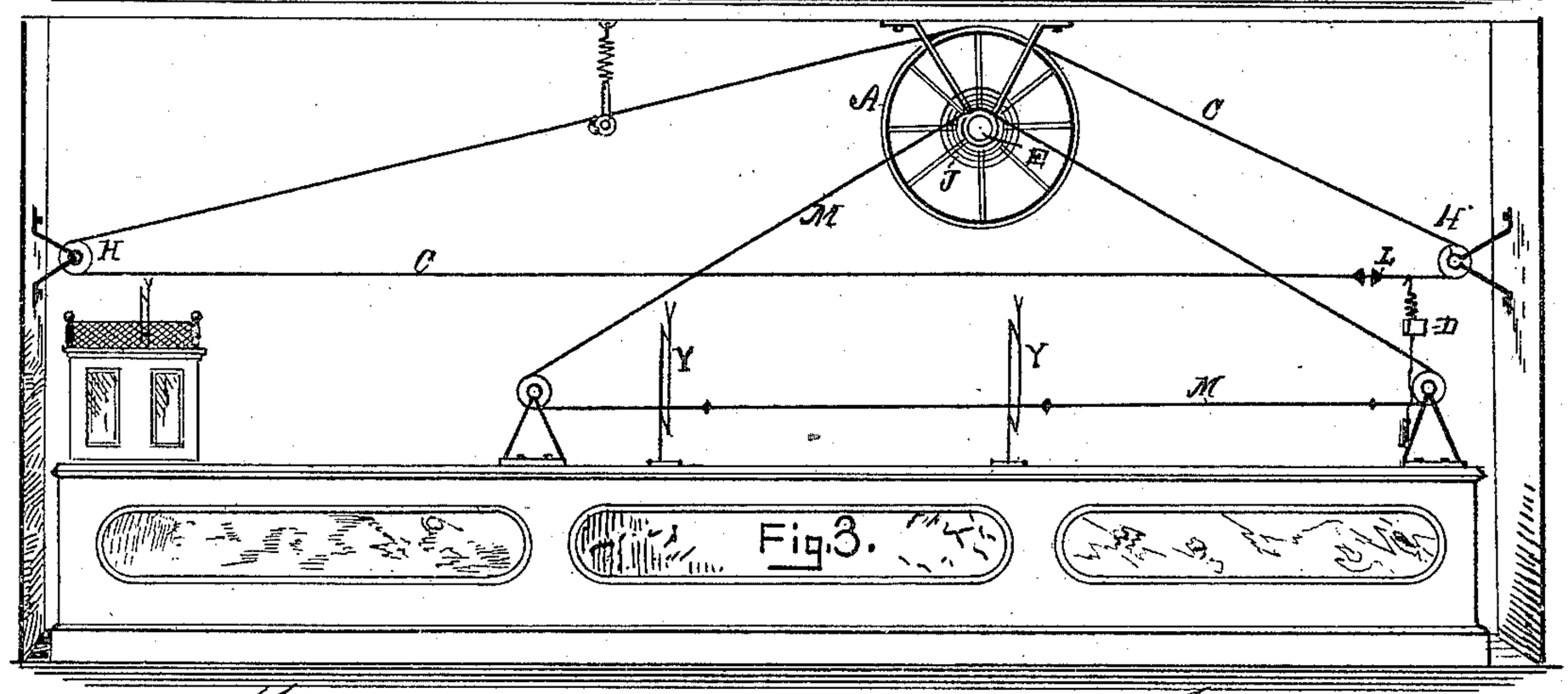
W. P. BIGELOW.

CASH AND PARCEL CARRIER.

No. 299,332. Patented May 27, 1884.







Witnesses.
E. A. Phelps
Elihu G. Loomis

Inventor.
William P. Bigelow
by his Attorney N. W. Stevens

(No Model.)

2 Sheets—Sheet 2.

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CASH AND PARCEL CARRIER.

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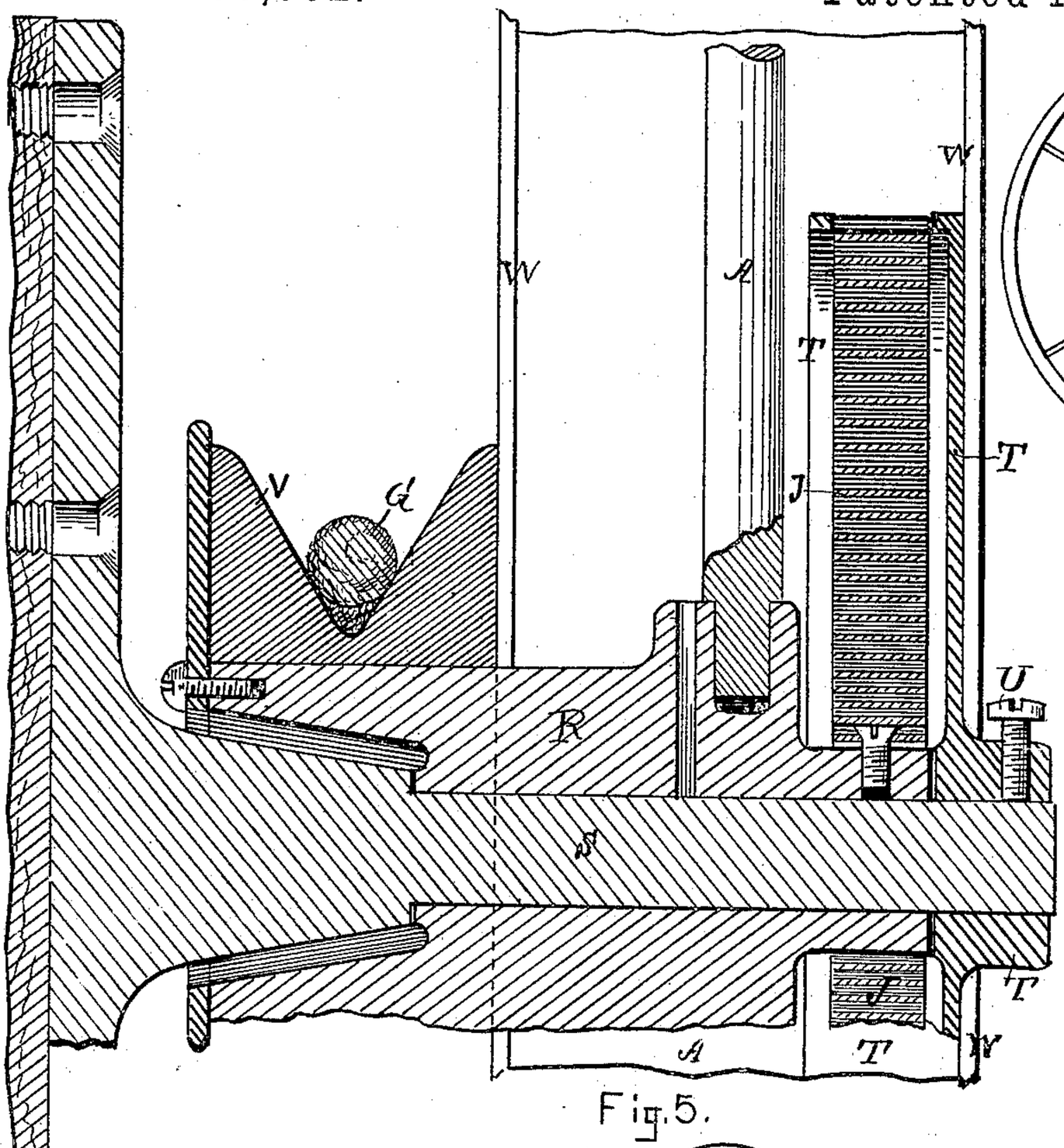

Fig. 5.

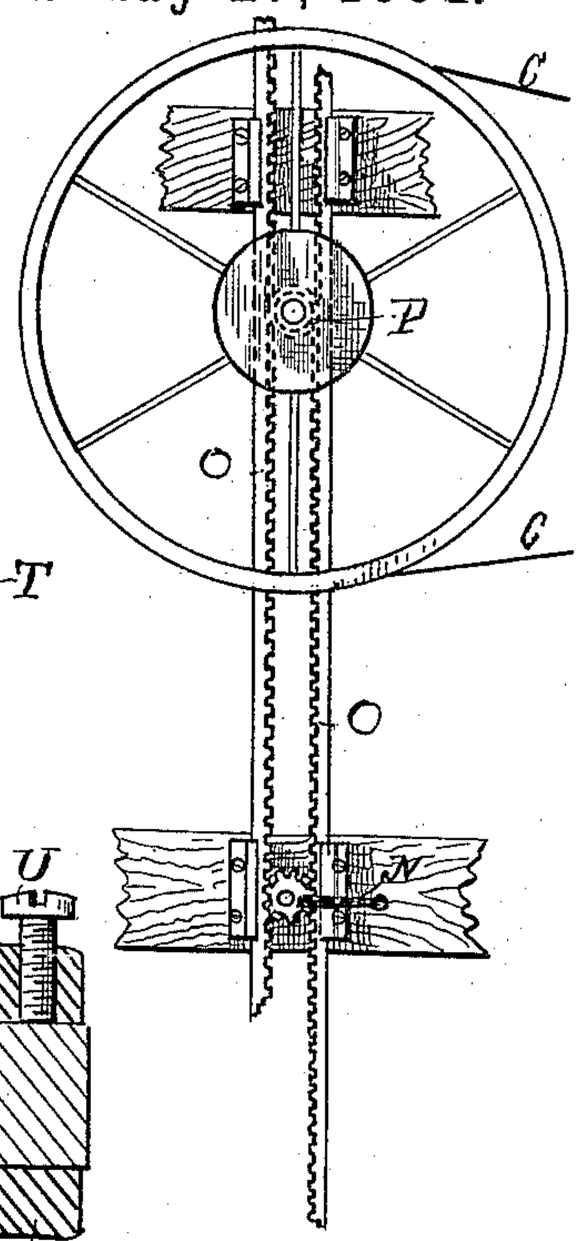

Fig. 6

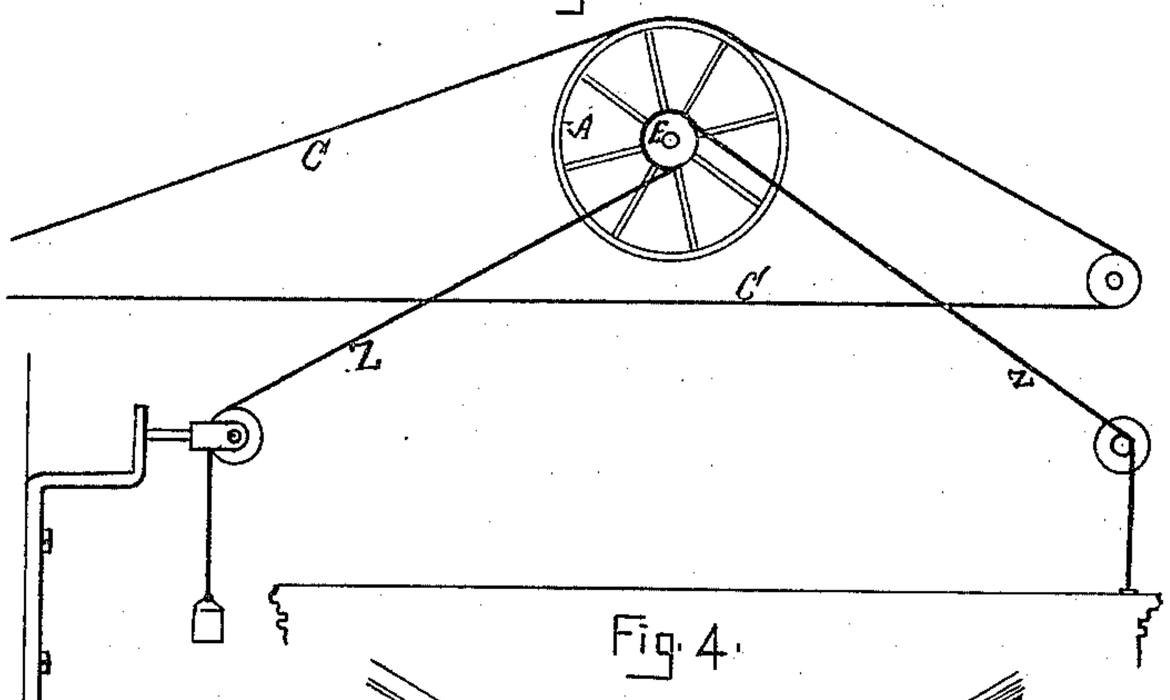

Fig. 4.

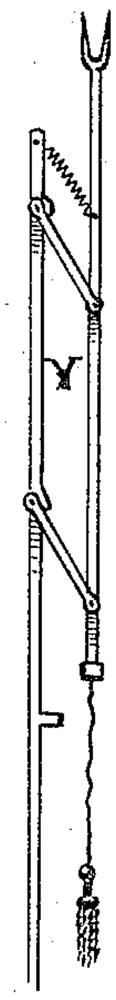

Fig. 7

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Fig. 8

UNITED STATES PATENT OFFICE.

WILLIAM P. BIGELOW, OF NATICK, MASSACHUSETTS.

CASH AND PARCEL CARRIER.

SPECIFICATION forming part of Letters Patent No. 299,332, dated May 27, 1884.

Application filed December 27, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM P. BIGELOW, a citizen of the United States, residing at Natick, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Cash and Parcel Carriers; and I do hereby declare that the same are fully described in the following specification, and illustrated in the accompanying drawings.

The object of my invention is to provide an economical and unobtrusive method of and means for store-service, such as conveying cash from a salesman's station to the cashier's desk, or small parcels from one point to another in the store. By my system I dispense with the unsightly frame-work required to support the tracks for rolling balls and other devices for carrying cash, and I substitute a cord or wire belt drawn tightly around pulleys and traveling with the cash or parcel to the desk and back to the starting-point. The pulleys may be concealed, and the driving-wheel will usually be furnished with a rack and pinion or a multiplying-wheel with hand-belt, so that the salesman or either one of several clerks may readily and rapidly transport the box, bag, or basket and its contents from his station to the cashier, who returns the same (after making the change) by a reverse movement of the belt effected by a spring.

Various auxiliary devices form features of my improvements; and my invention consists in the devices and combination of devices set forth in the appended claims.

In Sheet 1 of the drawings various forms of apparatus are shown, each having the characteristic peculiarity of my invention—that is, the belt moving with the cash box or basket in either direction as the driving-wheel is rotated. The figures on Sheet 2 illustrate certain details which will be explained.

Figure 1 represents the simplest form of the apparatus, and shows two large grooved wheels or flanged pulleys, A A, one at the salesman's station and one at the cashier's. These wheels give motion to the carrying belt or cord C, stretched tightly around them. At a fixed point on this belt the cash box, bag, or basket D is so hung that it may be drawn down a suitable distance, held by a catch, if required, and when released be drawn up by a spring similar to a curtain-spring. The axis of each wheel is provided with a small multiplying-wheel, E, of about one-tenth the diameter of the large wheel, more or less, and an endless rope or belt, G, extending down to the counter or desk, and around another small wheel, F, furnishes means of actuating the whole system. By drawing down the hand-rope G, so as to rotate the small wheels once, the large wheel likewise makes a revolution, and the rope C is caused to move forward rapidly in the right direction, carrying the basket or cash-box with it. The cashier draws down the basket, makes the change, and returns the balance, sending it back to the salesman by pulling the hand-rope G, which reverses the motion of the belt C.

Fig. 2 substitutes for the large and small wheels and hand-rope at the cashier's station a small grooved pulley, H, at the proper height to bring the basket D at the level of the desk. At the salesman's station the wheels A, E, and F and hand-rope G, or equivalent actuating devices, are retained to move the belt and basket toward the cashier's desk. With these parts a new feature of my invention is introduced—viz., a spring, J, adapted to be wound up by the movement of the belt carrying the basket to the desk, and by its recoil to return the basket automatically to the salesman's station. I also add an automatic catch, K, of suitable construction, to engage the basket or an adjacent part of the belt and temporarily prevent its return. The device shown is a small cone, L, on the cord. Its apex readily enters the catch and its base is held by it. When the change has been made, the cashier releases the catch by spreading its members or otherwise, and the basket returns with the movement of the belt by the recoil of the spring. A similar catch may hold the basket at the salesman's station, or the recoil may be exhausted at that point.

Suitable means of tightening the belt from time to time may be employed, such as adjusting the bearings of the wheels by spring or set-screw, or deflecting the upper part of the belt to take up the slack of the lower part.

Fig. 3 represents the driving-wheel and return-spring as hung from the ceiling, the carrying-belt as surrounding and supported by said wheel centrally, and by loose pulleys H at each end, so as to give a horizontal or other

proper direction to the lower part of the belt. The multiplying-wheel E is retained, and motion is communicated to it by a cord, M, stretched, so that two or more clerks may operate it to send the cash to the desk, the return movement to the outermost station being effected by the spring.

Suitable catches are provided to hold the basket at the intermediate stations to receive cash or deliver change. One form is represented in Fig. 3, and on a larger scale in Fig. 7, where two parallel rods, Y, are shown jointed to each other, so as to close together, when desired, to arrest the movement of the cord M between them at specified points, denoted by balls or other stops. At other times they are thrown apart by the spring shown in Fig. 7, or by other devices. The upper end of the movable rod may be forked to catch the carrying-belt or cash-basket and temporarily detain it.

Fig. 4 illustrates a method of driving the belt by cords Z around the multiplying wheel or drum E, one of which may extend to each salesman's station, so that either clerk having made a sale may actuate the belt C by pulling the cord. If preferred, such cord may run through a pulley-block secured to the end of a rope wound round the drum E.

Fig. 5 shows on a larger scale many of the parts to which reference has been made. The hub R of the wheel A revolves on a stationary bearing, S, which may be secured to a wall or post. The actuating-spring J is shown secured at its inner end to the hub of the wheel, and at its outer end to the flange of a casing, T, in which it is coiled. The casing is represented as held stationary upon the bearing S by a set-screw, U. The actuating-belt G is shown in a deep groove, V, of the multiplying-wheel E, and the rim of the wheel A is provided with flanges W.

Fig. 6 represents a pinion, P, on the axis of the driving-wheel, and a similar one below provided with a pulley or a crank, N. The racks O—one or both—engage with the teeth of these pinions, and drive the wheel A and belt C by power applied to the crank or pulley. It is obvious that a crank may be attached to drive the wheel A.

Fig. 7 is an enlarged view of Fig. 3.

Fig. 8 shows how my system is adapted for turning corners by running the belt around one or more grooved pulleys mounted in spring or other bearings X, the cash-receptacle being suspended from the belt by a flexible cord, which can readily bend as the belt passes through the grooves of said pulleys.

I do not deem it necessary to explain the various modifications of which my invention is capable, many of which will readily suggest themselves to those skilled in the construction of such apparatus.

I do not claim a cord, rod, or wire stretched as a course over which a cash or parcel holder may roll or slide, nor a fixed way of any character over which such receptacle may travel, the peculiarity of my invention being that the endless belt which carries the cash or parcel travels with the same to the delivery station and back, after a halt, and by a reverse movement to the starting-point.

I am aware of the patent to Elliott, September 11, 1883, showing a cord not endless, and weights at the ends thereof, of which one or the other must be lifted with every movement of the parcel and carrying-cord. I am also aware of the patent to Hayden, dated December 5, 1882, in which are shown automatically-dumping carriers pivoted on a belt having a continuous movement in one direction, with special tripping devices. I disclaim the construction and combination of apparatus set forth in said patents.

I claim as my invention—

1. In a cash-carrying apparatus, the combination of supporting and driving wheels carrying a moving belt, and a cash-receptacle borne thereon, with multiplying-wheels and means of actuating them, so as to give increased speed to the belt-driving wheel, substantially as set forth.

2. In a carrying apparatus, supporting and driving wheels and a moving carrying-belt and receptacle traveling thereon, in combination with means of accelerating the speed of said parts, and a spring for effecting a return movement, substantially as set forth.

3. In a cash or parcel carrying apparatus, two or more supporting and driving wheels upholding and giving a traveling motion to an endless carrying-belt and a suitable receptacle carried thereon, in combination with a hand-belt or equivalent device for actuating the apparatus, when desired, at a speed and to a distance beyond that of the actuating device, a spring serving to return the receptacle when desired, and a suitable catch to prevent its premature return, substantially as set forth.

4. In a carrying apparatus, a carrying-belt mounted on a driving-wheel and on one or more supporting-wheels, in combination with an accelerating-spring secured at one end to a stationary casing, which incloses it, and at the other end to a part of the driving-wheel, for the purpose set forth.

5. The driving-wheel A, supporting-wheel H, and carrying-belt C, in combination with the multiplying-wheel E, pulley F, and hand-belt G, substantially as set forth.

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

WILLIAM P. BIGELOW.

Witnesses:

E. A. PHELPS,

SARAH E. NEAL.