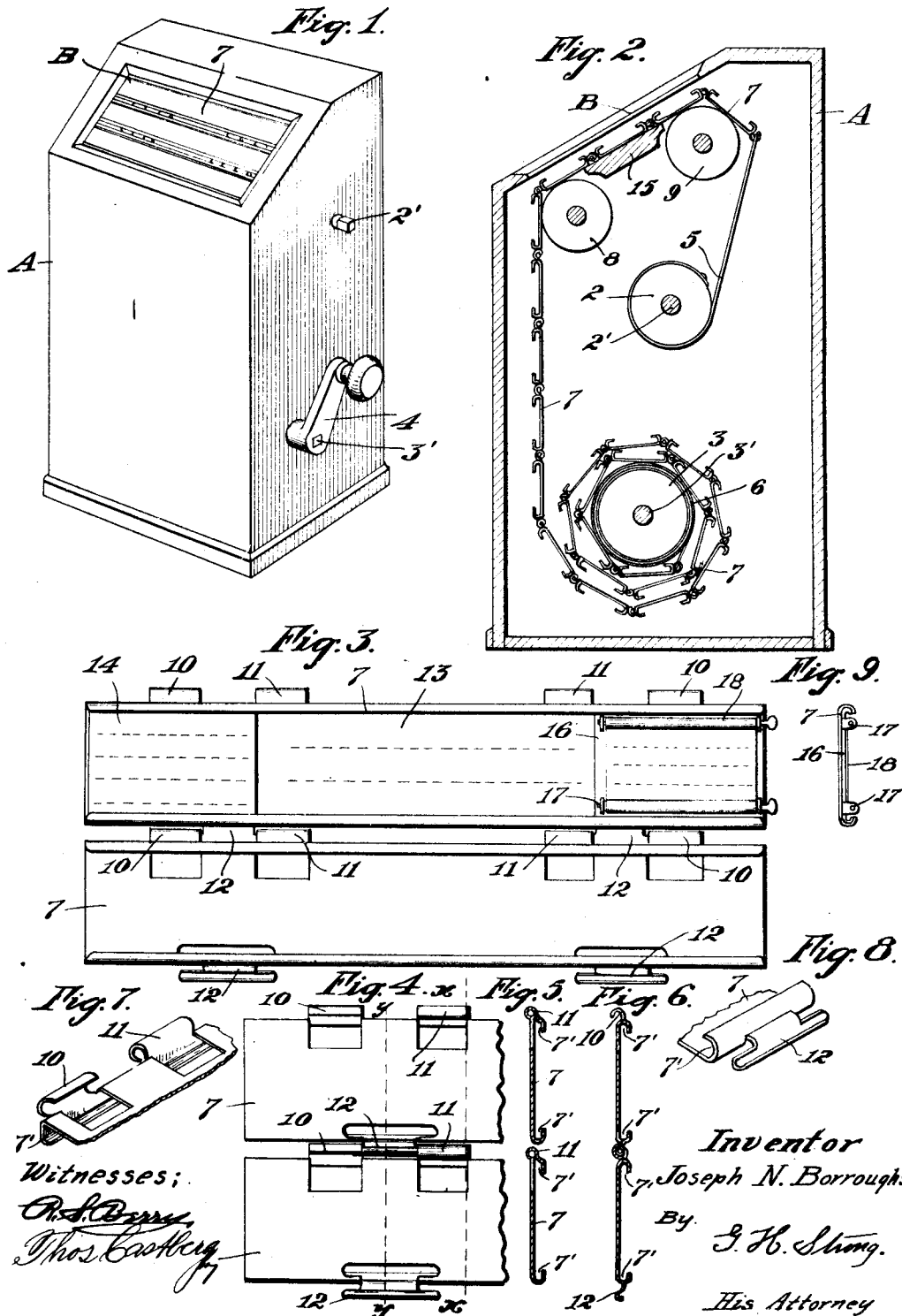


J. N. BORROUGHS.
 CATENATED INDEX AND LEDGER.
 APPLICATION FILED APR. 10, 1912.

1,065,337.

Patented June 24, 1913.



UNITED STATES PATENT OFFICE.

JOSEPH N. BORRUGHES, OF OAKLAND, CALIFORNIA.

CATENATED INDEX AND LEDGER.

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Specification of Letters Patent.

Patented June 24, 1913.

Application filed April 10, 1912. Serial No. 689,924.

To all whom it may concern:

Be it known that I, JOSEPH N. BORRUGHES, citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Catenated Indexes and Ledgers, of which the following is a specification.

This invention relates to a catenated ledger and particularly pertains to the interchangeable memorandum links therein.

It is the object of this invention to provide a catenated ledger having a series of detachable and interchangeable memorandum links which is simple in construction and operation, and which is especially applicable for use by laundrymen, grocery solicitors, and deliverymen in general.

A further object is to provide a means in a ledger of the above character for readily coupling and uncoupling the memorandum links so as to permit of condensing or extending the ledger or substituting links.

The invention consists of the parts and the combination and construction of parts as hereinafter more fully described and claimed having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the invention. Fig. 2 is a vertical section of same. Fig. 3 is a detail in plan of a pair of interlocked memorandum links. Fig. 4 is a detail of the reverse side of links with portions broken away. Fig. 5 is a section on the line X X, Fig. 4. Fig. 6 is a section on the line Y Y, Fig. 4. Fig. 7 is a detail in perspective of the female hinge member on the link. Fig. 8 is a similar view of the male hinge member. Fig. 9 is an end view of the link carrying the papyrus roll.

In the drawings A represents a cabinet of any suitable construction having an inclined portion on its upper end in which is an opening B of any suitable extent. Mounted transversely of the cabinet A on the interior thereof is a pair of reels or drums 2—3 which are separated some distance apart and are each mounted on revoluble shafts 2'—3' supported in the sides of the cabinet A. One end of each shaft 2'—3' extends through the side of the cabinet and is squared to enter a rectangular perforation in a crank 4, by means of which crank the shafts 2'—3' and drums 2—3 are rotated as desired. One end of a tape or ribbon 5 is attached to the periphery of the drum 2 and is adapted to be

wound thereon; a similar tape or ribbon 6 being secured at one end to the periphery of the drum 3. The outer ends of the tapes 5—6 are attached to the end links 7 of a peculiarly constructed chain which passes over direction rollers 8—9 in the cabinet A, adjacent the opening B, and which is adapted to be wound upon either of the drums 2—3, as desired, so as to dispose any one of the links 7 in the chain across the opening B. The links 7 are constructed as shown in Figs. 3 to 8 inclusive, each link consisting of an elongated rectangular inflexible plate, the longitudinal edges of which are bent upward and over the upper face of the plate to form grooves or channels 7' for the introduction of cards, slips, samples or any other article which may be carried by a link 7. The plates are coupled together on their long edges by means of a disconnectible hinge, which hinge permits of sufficient movement of the links in relation to each other that they may be readily wound upon the drums 2—3. In forming the hinge on the link plate, a pair of tangs 10—11 are struck from the plate near each end and on one side thereof as shown in Fig. 7, the tangs 10 and 11 being slightly separated from each other. The tangs 11 are turned downwardly to form a cylindrical tube while the tangs 10 are bent into the form of a hook. Tangs 12 are struck from the opposite edge of the plate in the form of a T as shown in Fig. 8; the upper surface of which is depressed longitudinally to form a groove or channel which is adapted to receive the long edge of a hooked tang 10 on an adjacent link 7. In assembling the links 7, the links to be connected are placed back to back with the hooked tang 10 engaging the grooved tang 12. The links are then moved in longitudinal relations to each other in such manner as to cause one end of each tang 12 to enter cylindrical tang 11, thus connecting the links together as shown in Fig. 3.

From the foregoing it will be seen that by slacking a chain of the connected links, that any of the links may be separated from those adjacent thereto by disconnecting the tangs 12 from the tangs 10—11 in a manner opposite that employed in assembling the chain. This admits of any links being removed or new links added in the chain at any point in its length.

In the application of this invention I mount a memorandum card 13 in the cen-

tral portion of each link 7 on which is written or printed the name and address of a customer or any other desired items. In addition to the memorandum card 13 a number of slips or cards 14 are inserted between the grooves 7' at one end of each link 7, the purpose of which is to provide removable blanks which may be in the form of receipts or may be used for recording entries, or other items, according to the use to which the invention is put. These cards or links may be arranged in alphabetical or numerical order to facilitate the disposing of a desired link in the opening B. A fixed table 15 is arranged beneath the chain between the rollers 8—9 so that in writing on a link through the opening B, the chain will not sag.

Each link 7 is provided at one end with a detachable plate 16 which is so constructed as to slide between the grooves 7' and be retained therein by frictional engagement. This plate 16 carries a pair of horizontally disposed revoluble pins 17 supported in upwardly projecting tangs struck from the plate 16. These pins 17 are disposed near the longitudinal edges of the plate 16 and are adapted to have a strip or ribbon 18, or paper or other material, wound thereon, which strip 18 is designed to be wound from one pin 17 to the other; small thumb pieces being formed on the outer end of each pin 17 by means of which the pins may be turned. The purpose of the strip 18 is to provide a papyrus roll for recording memoranda or notes which are too lengthy to inscribe on the cards 13—14; this roll being made detachable in relation to the link 7 to admit of its being removed and filed, and another roll reinserted in the link 7.

Having thus described my invention what I claim and desire to secure by Letters Patent is—

1. In an index and ledger, a chain of memorandum carrying interchangeable links adapted to wind upon drums, each of said links comprising an elongated rectangular plate having grooves formed on the longitudinal edges thereof for the introduction of cards, etc., and means on each plate for hingedly connecting said plate to an adjacent plate, said means consisting of a pair of slightly separated tangs near each end and on one side of the plate, one tang of each pair being formed into a cylindrical

tube and the other tang of each pair bent into a hook, and T-shaped tangs on the opposite side of the plate adapted to engage the tubular and hooked tangs on the adjacent plate.

2. In an index and ledger, the combination of a cabinet having an inclined upper end with an opening therein, a pair of drums revolubly mounted therein, a table beneath said opening, a ribbon secured to each drum and windable thereon, a chain of memorandum carrying detachable and interchangeable links connected at each end to said ribbons and windable from one drum to the other, and means for rotating said drums from the exterior of said cabinet.

3. In an index and ledger, the combination of a cabinet having an inclined upper end with an opening therein, a pair of drums revolubly mounted therein, a ribbon secured to each drum and windable thereon, a chain of memorandum carrying interchangeable links connected at each end to said ribbons and windable from one drum to the other, means for rotating said drums from the exterior of said cabinet, and a pair of direction rollers in said cabinet over which said chain of links travels to dispose said chain across the opening in said cabinet.

4. In an index and ledger, the combination of a cabinet having an inclined upper end with an opening therein, a pair of drums revolubly mounted therein, a ribbon secured to each drum and windable thereon, a chain of memorandum carrying interchangeable links connected at each end to said ribbons and windable from one drum to the other, means for rotating said drums from the exterior of said cabinet, and a pair of direction rollers in said cabinet over which said chain of links travels to dispose said chain across the opening in said cabinet, each of said links comprising an elongated rectangular inflexible plate having upturned portions on its longitudinal edges, and members on said plate adapted to interlock with members on an adjacent plate to form a hinged connection.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOSEPH N. BORROUGHS.

Witnesses:

JOHN H. HERRING,
CHARLES EDELMAN.