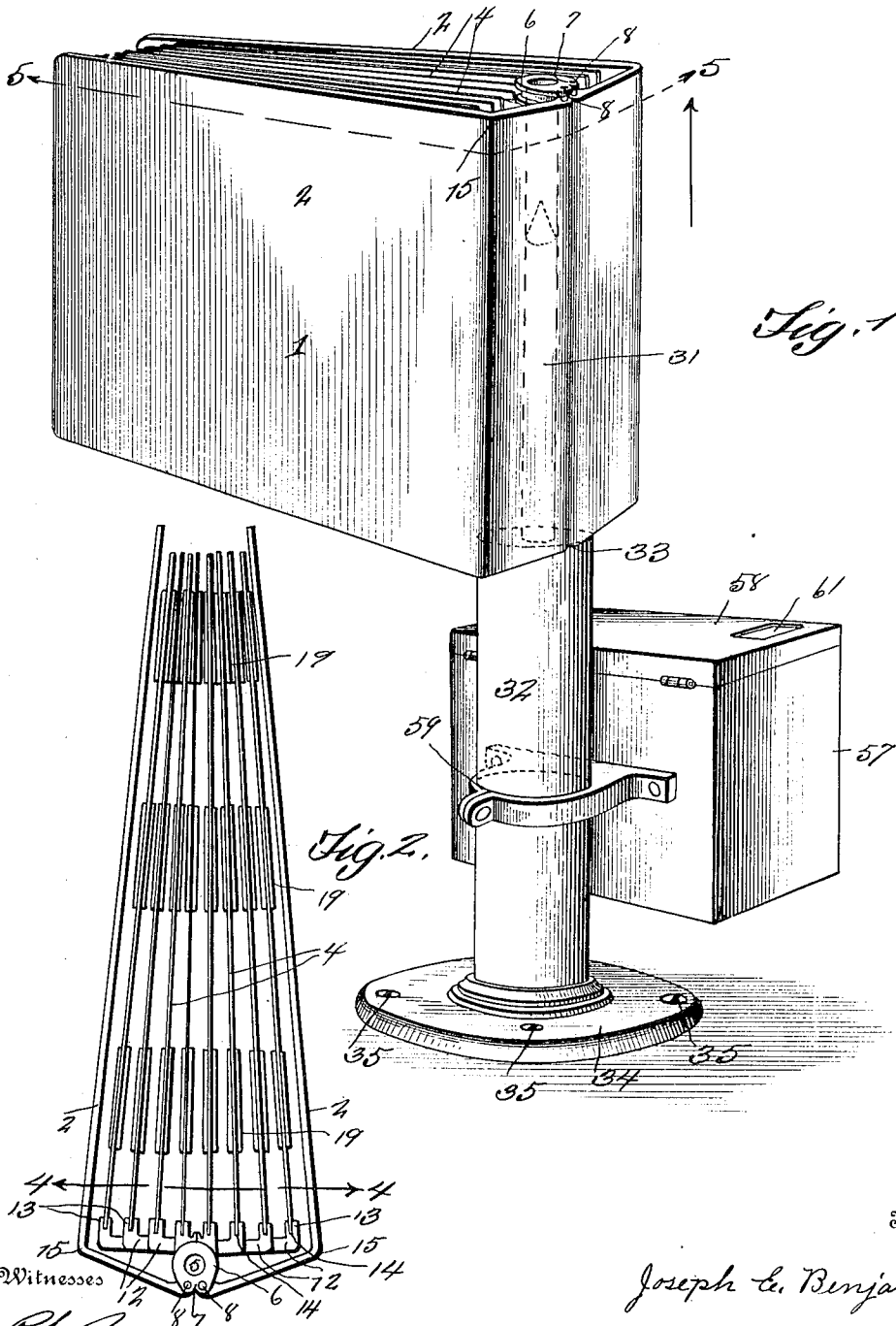


J. E. BENJAMIN.
 REVOLVABLE ACCOUNT REGISTER.
 APPLICATION FILED APR. 7, 1908.

943,961.

Patented Dec. 21, 1909.

5 SHEETS—SHEET 1.



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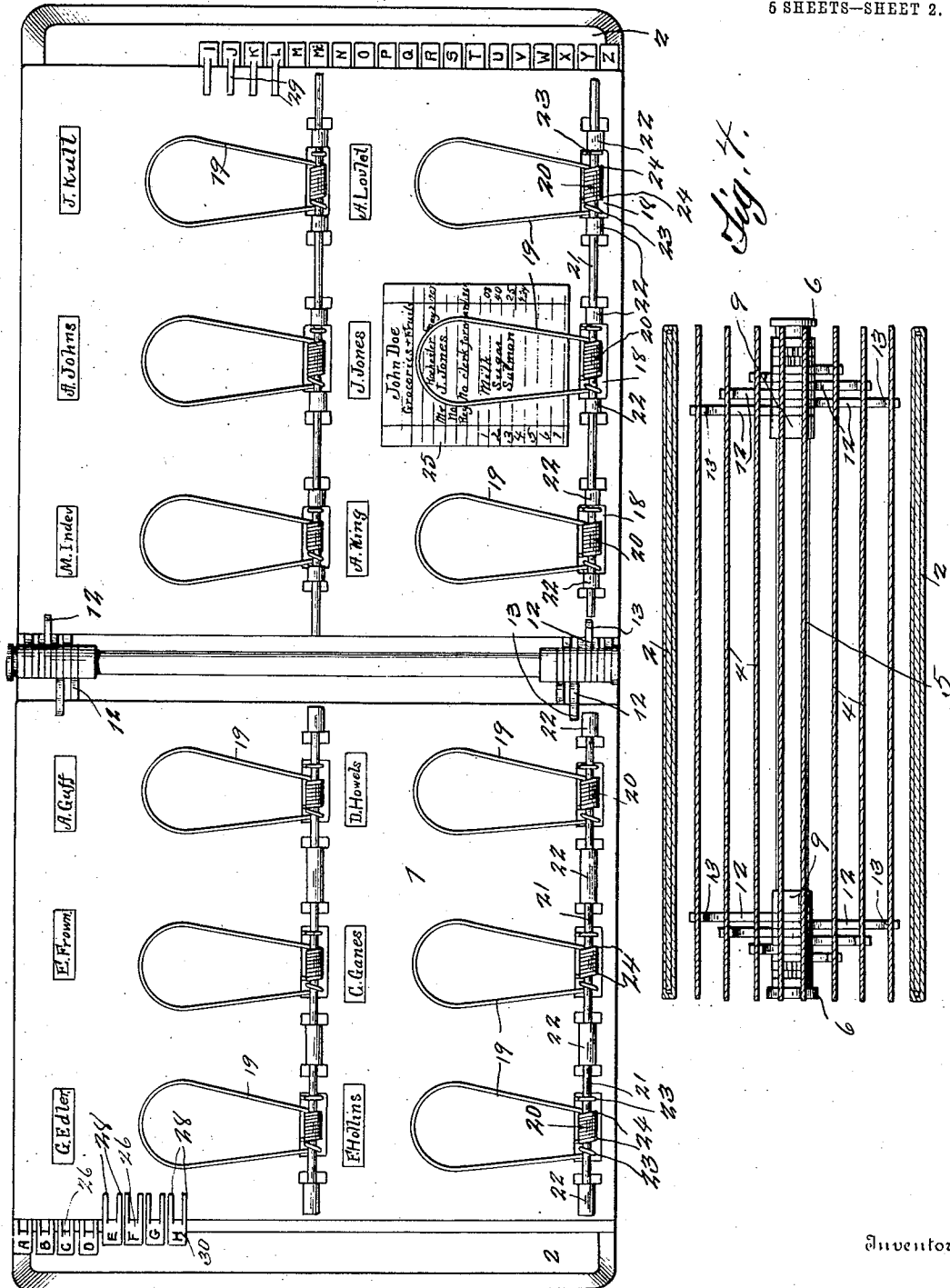
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6 SHEETS—SHEET 2.



Witnesses

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Fig. 3.

Fig.

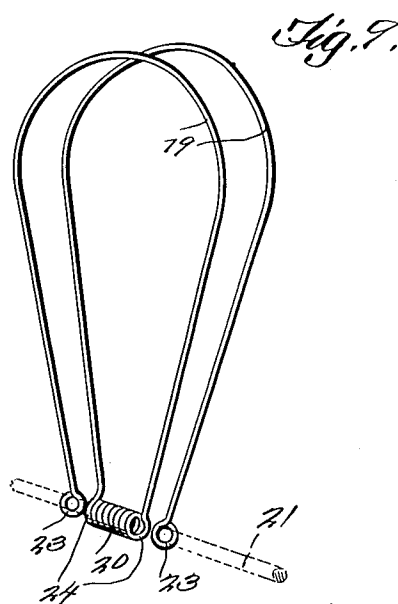
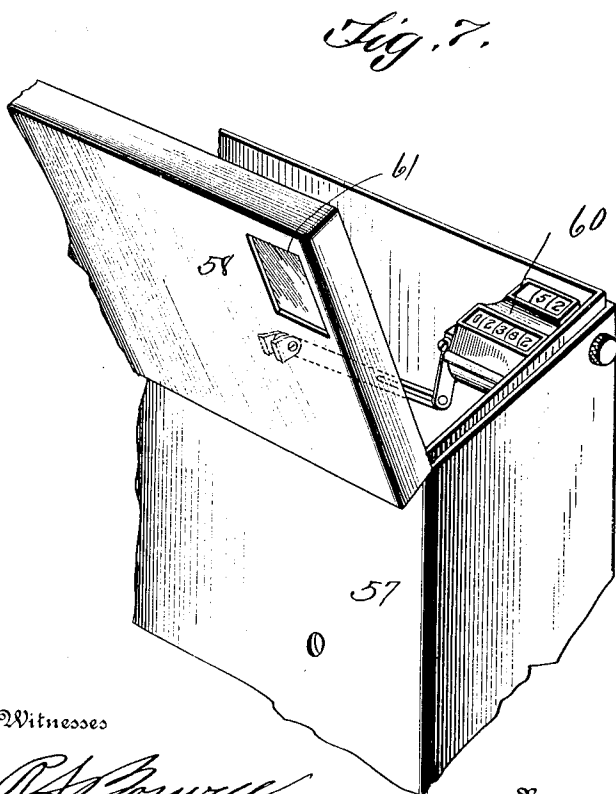
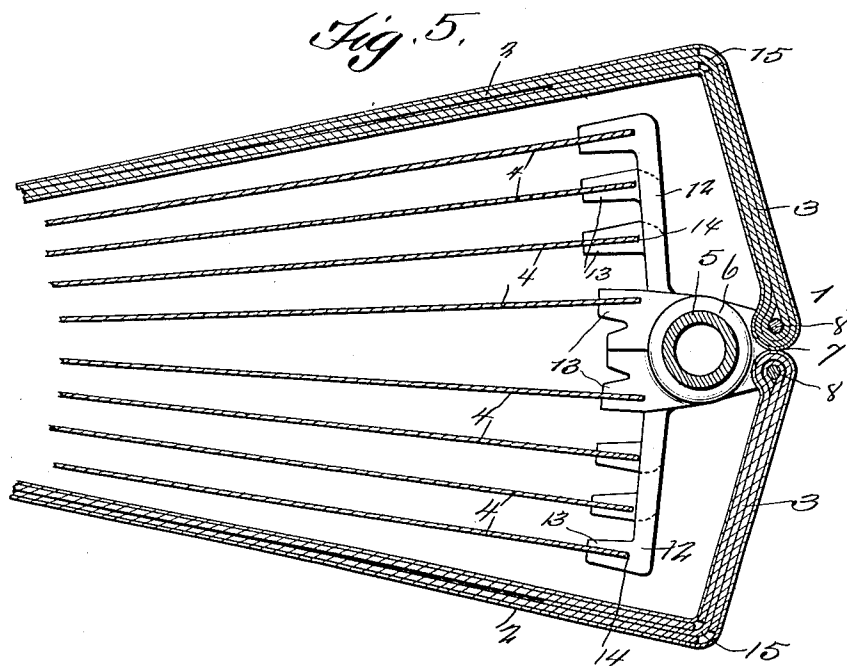
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5 SHEETS—SHEET 3.



Witnesses

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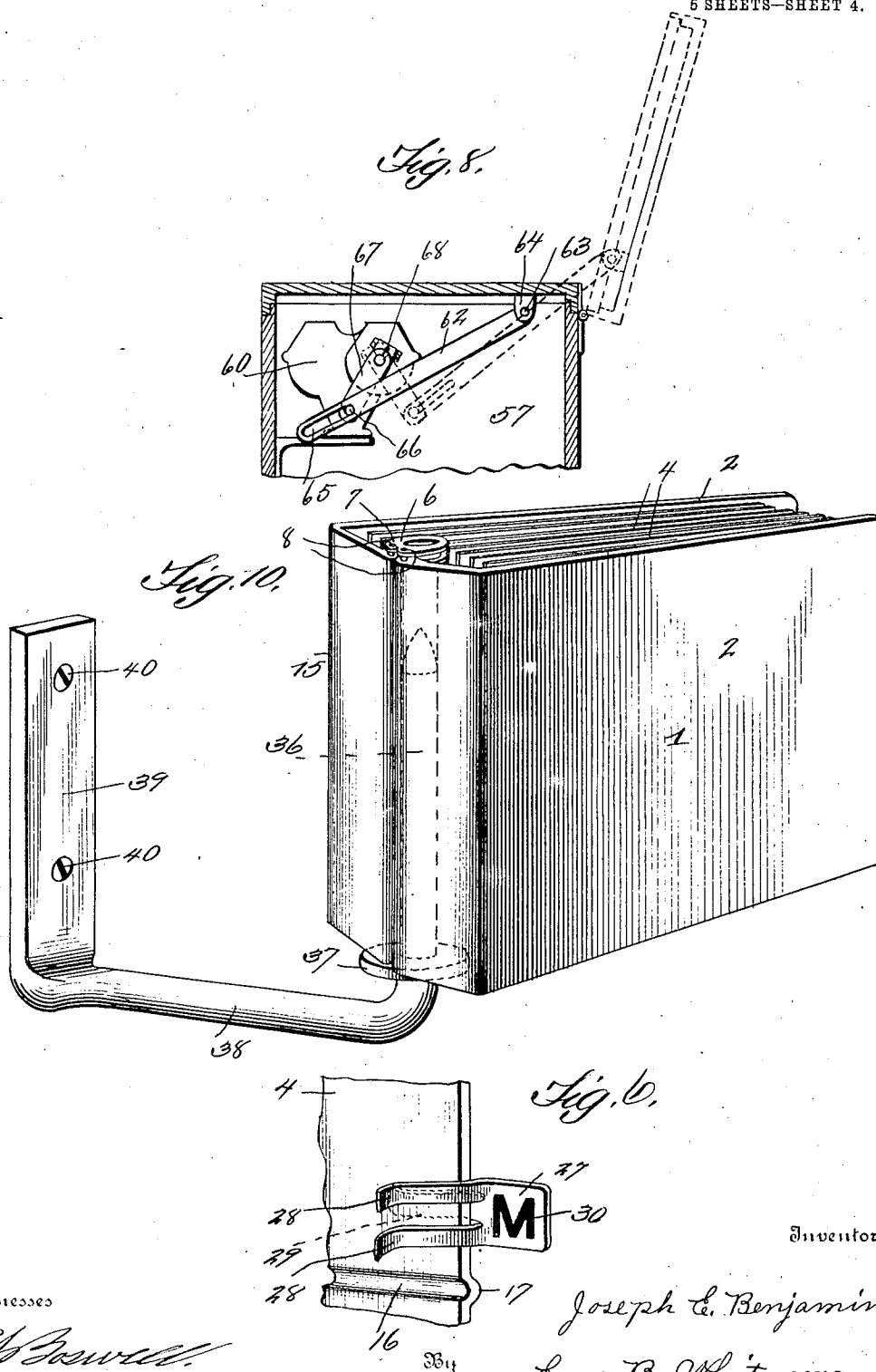
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5 SHEETS—SHEET 4.



Witnesses

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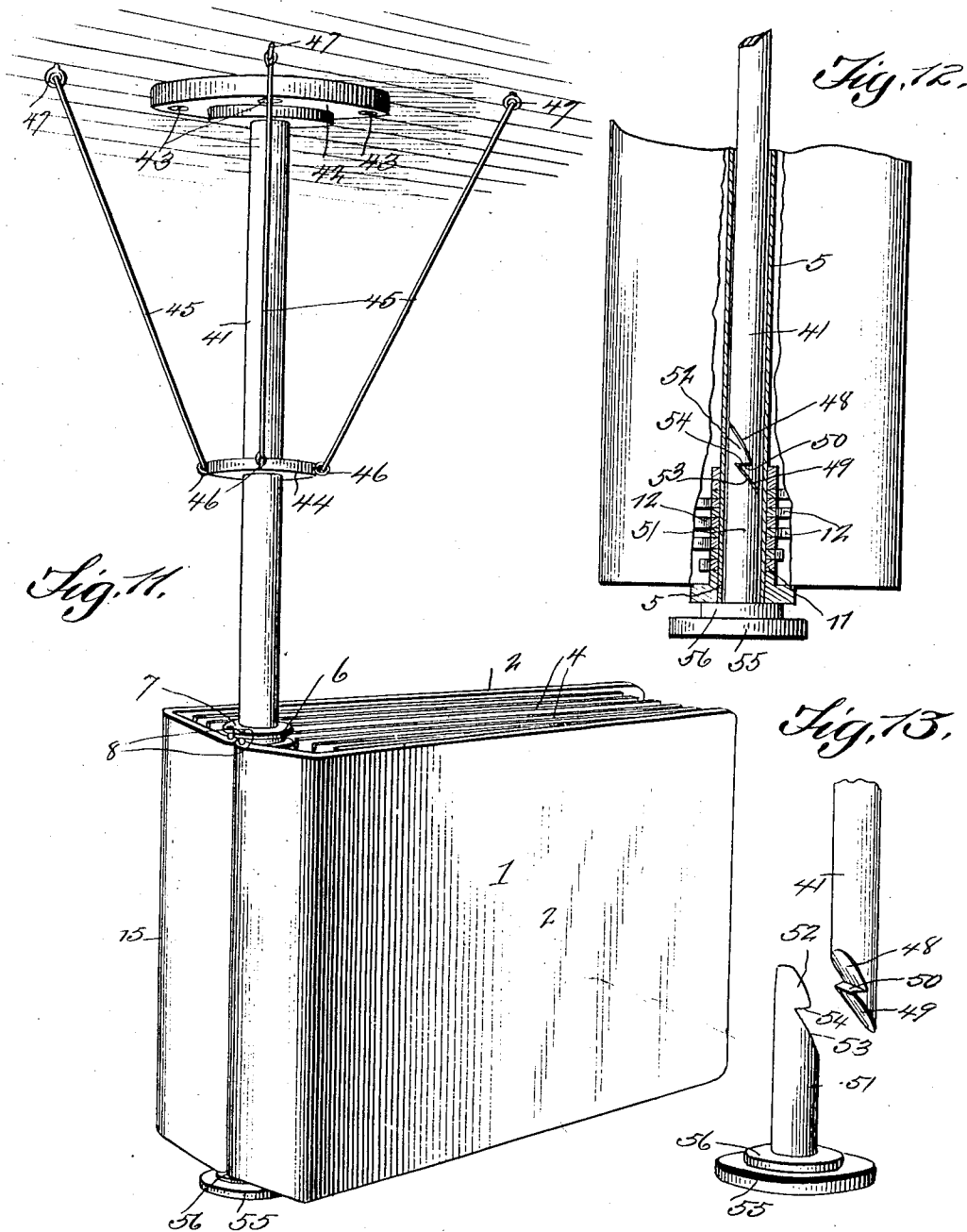
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5 SHEETS—SHEET 5.



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UNITED STATES PATENT OFFICE.

JOSEPH E. BENJAMIN, OF ROCHESTER, NEW YORK.

REVOLVABLE ACCOUNT-REGISTER.

943,961.

Specification of Letters Patent. Patented Dec. 21, 1909.

Application filed April 7, 1908. Serial No. 425,697.

To all whom it may concern:

Be it known that I, JOSEPH E. BENJAMIN, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Revolvable Account-Registers, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

This invention relates to what I term a revolvable account register and it has for its object among others to provide an efficient register for use in all kinds of retail or wholesale places where credit is given for goods or material purchased. It comprises in its broadest sense a book or a series of leaves fastened to a suitable support which is tubular in form and is adapted for coöperation with a spindle which may rise from a fixture on a counter or table or it may be a floor, or suspended from the ceiling or some overhead support, or in some cases affixed to a vertical support, as may be most expedient and in accordance with the position in which it is used. The book is designed to be supported during the day or time of use upon its spindle, and at night taken off the support and placed in a safe. When suspended from the ceiling, a novel form of catch is employed which is locked by the book itself and unlocked by the removal thereof. Mounted upon the support or in convenient proximity thereto is a box or receptacle designed to receive the stubs and provided with a counter coöperatively connected with the lid of the box or receptacle so that at each opening of the lid the counter is moved and thus a correct tab kept on the number of stubs thrown into the box. Each leaf of the book contains a plurality of springs and over each spring is the name of a customer which provides accurate reference for locating the customer's account, the slips employed in connection with the register being placed one by one under the springs. The edges of the leaves are provided with removable and interchangeable index characters for a purpose which will be obvious.

Other objects and advantages of the invention will hereinafter appear and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the numerals of reference marked thereon, form a part of this specification and in which—

Figure 1 is a perspective view showing the book and the box for holding stubs mounted upon a support attached to a floor or counter. Fig. 2 is a top plan of the book closed. Fig. 3 is a view looking down on the book with the leaves opened. Fig. 4 is a section on the line 4—4 of Fig. 2. Fig. 5 is a section on the line 5—5 of Fig. 1 looking in the direction of the arrow. Fig. 6 is a perspective detail of an edge of a leaf with the indexing member thereon. Fig. 7 is a perspective view of a portion of the stub-receiving box and its counter, with the lid thrown open. Fig. 8 is a vertical sectional detail through said box. Fig. 9 is an enlarged perspective view of a slip-holding spring detached from the leaf. Fig. 10 is a perspective view showing the book mounted on a different form of support. Fig. 11 is a perspective view showing the book supported on a suspended support. Fig. 12 is a view partly in elevation and partly in vertical section with portions broken away, of the construction shown in Fig. 11. Fig. 13 is a perspective detail showing the two members of the inter-engaging catch employed in the form seen in Figs. 11 and 12.

Like numerals of reference indicate like parts throughout the several views.

Referring to the drawings 1 designates the book proper, which in the present instance comprises the covers 2, the back portions 3 of which extend at an angle which is a little more than a right angle from the portions 2 and are rigid therewith, and the leaves 4 which together with the back may be of metal, paper, leather, paper board or other suitable material, the leaves being preferably of thin metal to give sufficient rigidity thereto. The leaves are fastened to or carried by hinge members which are of peculiar construction allowing the leaves to swing and yet when open throwing each two adjacent leaves in such position with relation to each other that the leaves are readily accessible. The covers are so hinged as to allow them to hang and swing freely. When opening or closing the book, the hinges swing on one common or main tube or shaft extending from the top to the bottom of the book at the backs of the leaves.

5 is a hollow support or tube to each end of which is secured a flange or collar 6 in each of which, in a lateral extension 7 thereof, is mounted for rotation the rods 8 which

are rigid with the adjacent ends of the back portions 3. By this means the covers are mounted for free and easy movement independent of the rod, and the leaves can be turned with freedom in either direction relatively to the covers and the back portions thereof.

9 are collars on the rod or tube 5, and between these collars and the flanges or collars 6 are disposed the hinges of the leaves. Each of these hinges comprises a ring like member 11 sleeved upon the rod or tube 5 and an arm 12 extending therefrom and terminating in a right angled portion 13 having a slit 14 extending lengthwise of said right angled portion and in which the leaf 4 is received and secured in any suitable manner. Each leaf has two of these members connected therewith, one near the top and the other near the bottom, and these members are alternately disposed, as seen best in Figs. 3 and 4, that is, those connected with the leaves on one side of the center extend alternately with relation to those on the opposite side of the center for an obvious reason. It will be also noted, particularly upon reference to Fig. 4, that the hinges or members holding the leaves of the book are graded as to length, and in pairs, the hinges of each pair being of the same length, but all turning on a single axis, namely, the tube 5. By this construction any two adjacent leaves or all the leaves may be swung in the manner of opening or closing the book without rubbing upon each other, the outer edges of said two leaves or all of them remaining relatively motionless. These may be arranged either with the longer arms outside, or with the shorter arms outside.

The back portions 3 may be reinforced, if desired, by a metal member 15, as seen clearly in Fig. 5, which is bent around the rod 8 and extends for a short distance within the covers 2. This gives strength and additional rigidity to the covers and backs and prevents breakage at the junction or angles thereof.

The leaves may be of any suitable dimensions and may have thereon any desired number of loop spring holders, in the present instance, each leaf being shown as provided with six upon each side and these arranged in two rows one above the other. Each leaf is provided, in this instance, with a transverse furrow or depression 16 forming a corresponding elevation 17 upon the opposite side, there being as many of these furrows and elevations in each leaf as there are sets of loop spring holders, in the present case two. These furrows may extend to the edge of the leaf as seen in Fig. 6, or they may not as seen in Fig. 3. Each leaf is provided, in line with each furrow, with an opening 18 opposite each loop spring holder,

as seen best in Fig. 3. These loop spring holders 19 are formed of spring wire or analogous material and in this instance are disposed with their coils 20 around a rod 21 which is disposed in each furrow, as shown clearly in Fig. 3, suitable bearings 22 being formed in the leaves by the opposite bending of the material of the leaves. In the present instance, these loop spring holders are formed in pairs, one of each pair extending upon each side of the leaf, the portions thereof adjacent the coils being disposed in the openings 18, as shown, and each two spring holders formed of a single piece of material, each end of the material being formed into an eye or loop 23 which loosely encircles the rod 21 and the other end of each loop holder being formed with a similar eye 24, the two latter eyes 24 being disposed at opposite ends of and integral with the coil 20, all as seen best in Fig. 9. These loop spring holders are designed to hold slips 25, as seen in Fig. 3, which slips are torn from a book, said slips being arranged in duplicate in the book with a carbon sheet therebetween, and the stubs thrown into a box adjacent or attached to the pedestal or support of the book or register, as will soon be explained.

Each leaf is provided with an index or a plurality thereof, which are fastened above and adjacent to the loop spring holders, as shown at 26 in Fig. 3 and in detail in Fig. 6. Each label or index comprises a spring clip having a body portion 27 and spring fingers 28, and 29, one being designed to engage upon one side at the edge of the leaf and the others upon the opposite side, as will be clearly understood upon reference to Fig. 6. Each of these bears a reference letter or character, as seen at 30 in Fig. 6, it being understood that each clip or holder carries the same reference characters upon its opposite faces, or of course there may be different letters or reference characters upon opposite faces if desired, depending upon the size of the book and the desires of the storekeeper.

The book or register is designed to be mounted upon some suitable support, on a counter, desk, floor, wall or ceiling or wherever convenient and to be opened and closed and handled like any large book or ledger, and made in different sizes according to the number of accounts. The indexing devices are made interchangeable, as will be readily understood. In Fig. 1, the book is shown as supported upon a pedestal which is designed to be secured to a counter or desk or analogous support. It comprises an axial spindle 31 rising from the pillar or column 32 having a shoulder 33 which limits the downward movement of the book, and a base portion 34 having openings for the reception of screws or analogous means whereby it may

be secured to the counter or desk or other device, said screws being shown at 35. This spindle is designed to be received within the axial cavity or tube 5 at the back of the book whereby the book may have a pivotal motion upon said spindle, so that entries may be made in the book upon either side of the counter, or otherwise.

Various other forms of supports for the book may be provided. For instance, in Fig. 10 is shown a bracket whereby the book may be supported from a side wall or other vertical support. It comprises a vertical spindle 36 similar to the spindle 31 in Fig. 1, at the base of which spindle is a flange or collar 37, limiting the downward movement of the book and supporting the collar or flange 6 thereof. The spindle rises from the lower end of the vertical or supporting member 39 having openings for the reception of screws or other means 40 by which the bracket is secured in position. By means of this bracket the book may be held projecting from the wall, the horizontal arm 38 being of any desired length dependent upon the size of the book and the position in which it is to be supported.

In Figs. 11, 12 and 13 I have shown means for suspending the book from overhead. This comprises a pendent holder or rod 41 which constitutes a portion of the spindle, the same being carried by the securing member 42 secured to the ceiling by screws or other means 43. If desired, this pendent rod may be braced and supported by means of a collar 44 on the rod and the brace wires or the like 45 secured to the collar 44, as at 46, and to eyes or analogous means 47 held in the ceiling. The lower end of this rod 41 is formed with the two inclined parts 48 and 49 in different planes, with a notch or shoulder 50 therebetween. 51 is the cooperating portion of the spindle having the two inclined faces 52 and 53 and the intermediate shoulder or notch 54, it being noted that the two adjacent portions of the members 41 and 51 are oppositely disposed and constructed to interengage so as to form a continuous spindle. The rod 41 may be of any desired length and the rod 51 is formed with an expanded part 55 and a collar or flange 56 upon which the book is designed to rest and be supported. In the use of this form of the support, when the book is to be placed on the member 41, the member 51 is removed and the book is passed upward on the member 41, which latter it will be understood is received in the tube 5 of the book, until it uncovers or is above the portions 48, 49 and 50 of said member 41 which will thus be exposed below the lower edge of the book. The member 51 is then hooked onto or engaged with the lower end of the rod 41 so that the parts assume the position in which

they are seen in Fig. 12. The book is then allowed to slide downward so that its tube 5 covers the joint between these two members, which prevents them from becoming disengaged, the book resting upon the flange 56, as seen clearly in Fig. 12. In order to remove the book from this pendent spindle or support, the book is first slipped or moved upward upon the rod 41 sufficiently to uncover the locking joint between the adjacent ends of the members 41 and 51, when the latter is unhooked and removed, thus leaving the book free to be slipped downward off of the member 41, and placed in a safe or any other desired position.

In Fig. 1 I have shown a box or receptacle 57 for holding the stubs corresponding to the slips which are held by the loop spring holders 19 upon the leaves of the book. In this instance, the box which is provided with a hinged top or lid 58 is secured to the pedestal by a metal band or the like 59, although of course it is evident that any other securing means may be provided, or the box may be supported upon the floor or counter or other device adjacent the pedestal. It is to be understood also that in case the book is supported by the bracket, as shown in Fig. 10, or the pendent holder as shown in Fig. 11, the box 57 may be supported in proximity thereto in any convenient manner.

60 is a counter of known construction secured inside the box and adapted to be operated each time the cover or lid is actuated to drop a stub in the box. A suitable opening 61 is provided in the lid whereby the counter may be read when desired. This counter is actuated by means of an arm 62 pivotally secured at one end, as at 63, to a lug or ear 64 depending from the under side of the box, the other end of said arm having an elongated slot 65 in which works a pin 66 carried by a lever 67 carried by the shaft 68 of the disks of the counter, the construction being such that at each actuation of the cover or lid the counter will be actuated so that it registers the number of times the cover is opened, and thus the number of stubs in the box can be readily ascertained at any time.

With the parts constructed and arranged substantially as hereinbefore described and as shown in the drawings, the operation will be readily understood, and, briefly stated, is as follows:—The storekeeper, or clerks, are provided with duplicating charge books of any preferred form. When a customer, for example, J. Jones, buys on credit, the proprietor or clerk takes out his book and inserts the customer's name, date, the goods purchased, and the amount. The charge slip is then torn out of the book, which is in duplicate, a copy having been made by a carbon sheet between the two slips in the

usual manner; the slip is torn in two, one being given to the customer and the other taken to the book or register, and upon opening the book where indexed J the slip with the heading J. Jones is put back of the spring under the label marked J. Jones, as indicated. When J. Jones makes another purchase on credit the proprietor or clerk puts down the name, date, goods purchased, and the amount in the proper place as before, but before tearing out the slip from the charge book and placing it in position as before, he goes to the account register or book and finds out what J. Jones owed by referring to the index to locate the account. He then puts the amount of the charge on the prior slip or slips on the slip in the charge book, and by adding the amounts together he gets the amount then owed by J. Jones. The charge slip then torn out from the clerk's charge book, torn in two, one portion being handed to the customer and the other put back of the spring under the label marked J. Jones. By following out this method the condition of the customer's account is shown at a glance and the account is kept posted to date. At night or at closing time the book is taken off its support and placed in the safe, or if the book used is too large to be put in the safe the box containing the stubs can be placed in the safe and the book allowed to remain on its support or taken down and placed in any other position.

Modifications in detail may be resorted to, within the scope of the appended claims without departing from the spirit of the invention or sacrificing any of its advantages.

What is claimed as new is:—

1. In a device of the character described, a book having a plurality of separately hinged leaves and a tubular member having flanges, the hinges of the leaves being supported on said tubular member, and covers hinged to said flanges eccentric to the hinges of the leaves to the rear of said member approximately in line with the center of the book.

2. In a device of the character described, a book comprising a tubular member with flanges at the ends rigid therewith and extending rearward at the center of the book, covers hinged to the rearward extensions of said flanges, and leaves hinged to said members eccentric to the hinges of the covers.

3. In a device of the character described, a book comprising a tubular member with flanges at the ends rigid therewith and extending rearward at the center of the book, covers hinged to said flanges, and leaves hinged to said member, the hinge members being separately sleeved upon said tubular support and offset combined with means for rotatably mounting said book and holding it against endwise displacement.

4. In a device of the character described, a book comprising a tubular member with integral flanges at the ends and having extensions rearward at the center of the book, rods held in said extensions and connecting the same, and a cover having back portions mounted to turn on said rods to the rear of said member approximately in line with the center of the book.

5. In a device of the character described, a book comprising a tubular member with integral flanges at the ends and having extensions rearward at the center of the book, rods held in said extensions and connecting the same, a cover having back portions mounted to turn on said rods to the rear of said member approximately in line with the center of the book, and leaves separately hinged upon said tubular member.

6. In a device of the character described, a book comprising a tubular member with integral flanges at the ends extending rearward at the center of the book, rods held in said extensions and connecting the same, a cover having back portions mounted to turn on said rods to the rear of said member approximately in line with the center of the book, and leaves hinged upon said tubular member, the hinged members being graded as to length and arranged in pairs.

7. In a device of the character described, a book comprising a tubular member with integral flanges at the ends extending rearward at the center of the book, rods held in said extensions and connecting the same, a cover having back portions mounted to turn on said rods to the rear of said member approximately in line with the center of the book, and leaves hinged upon said tubular member, the hinge members being graded as to length and arranged in pairs, the hinge members of adjacent pairs being oppositely disposed.

8. In a device of the character described, a book having a tubular member having horizontal portions extending rearwardly at the center of the book, a separable interlocking support therefor receivable in said tubular member and having means for limiting the endwise movement of the book thereon, leaves independently sleeved upon said tubular member and hinged covers independently hinged on said rearwardly extending portions to the rear of said member approximately in line with the center of the book.

9. In a device of the character described, a book having a tubular member provided with flanges extending rearward at the center of the book to form independent supports for the covers, a vertical sectional interlocking support therefor removably receivable in said tubular member and having a portion to support the book and allow the latter to swivel on the support, and

separately formed covers independently hinged upon said flanges eccentric to the leaves of the book.

10. In a device of the character described, 5 a book having a tubular member, and a pendent two-part interlocking separable support therefor on which said tubular member is free to rotate, said support having means to prevent the book from dropping therefrom.

10 11. In a device of the character described, a book having a tubular member, and a pendent two-part interlocking support therefor receivable in and held locked by said tubular member and having means to prevent 15 the book from sliding off.

12. In a device of the character described, a book having a tubular member, and a suspended two-part interlocking supporting spindle therefor received within said tubular member and having means to prevent the 20 book from sliding off.

13. In a device of the character described,

a book having a tubular hinge-supporting member, and a pendent supporting spindle therefor composed of separable interengag- 25 ing members one of which carries a support for said book said members receivable within and held in closed condition by said tubular member.

14. In a device of the character described, 30 a book having a tubular member for supporting the leaves and covers, and a sectional pendent support therefor having interengaging members receivable within said tubular member and locked thereby, one of 35 said interengaging members having a lateral support for the book.

In witness whereof, I have hereunto set my hand this 6th day of April, 1908, in the presence of two subscribing witnesses.

JOSEPH E. BENJAMIN.

Witnesses:

E. B. WHITMORE,

A. M. WHITMORE.