

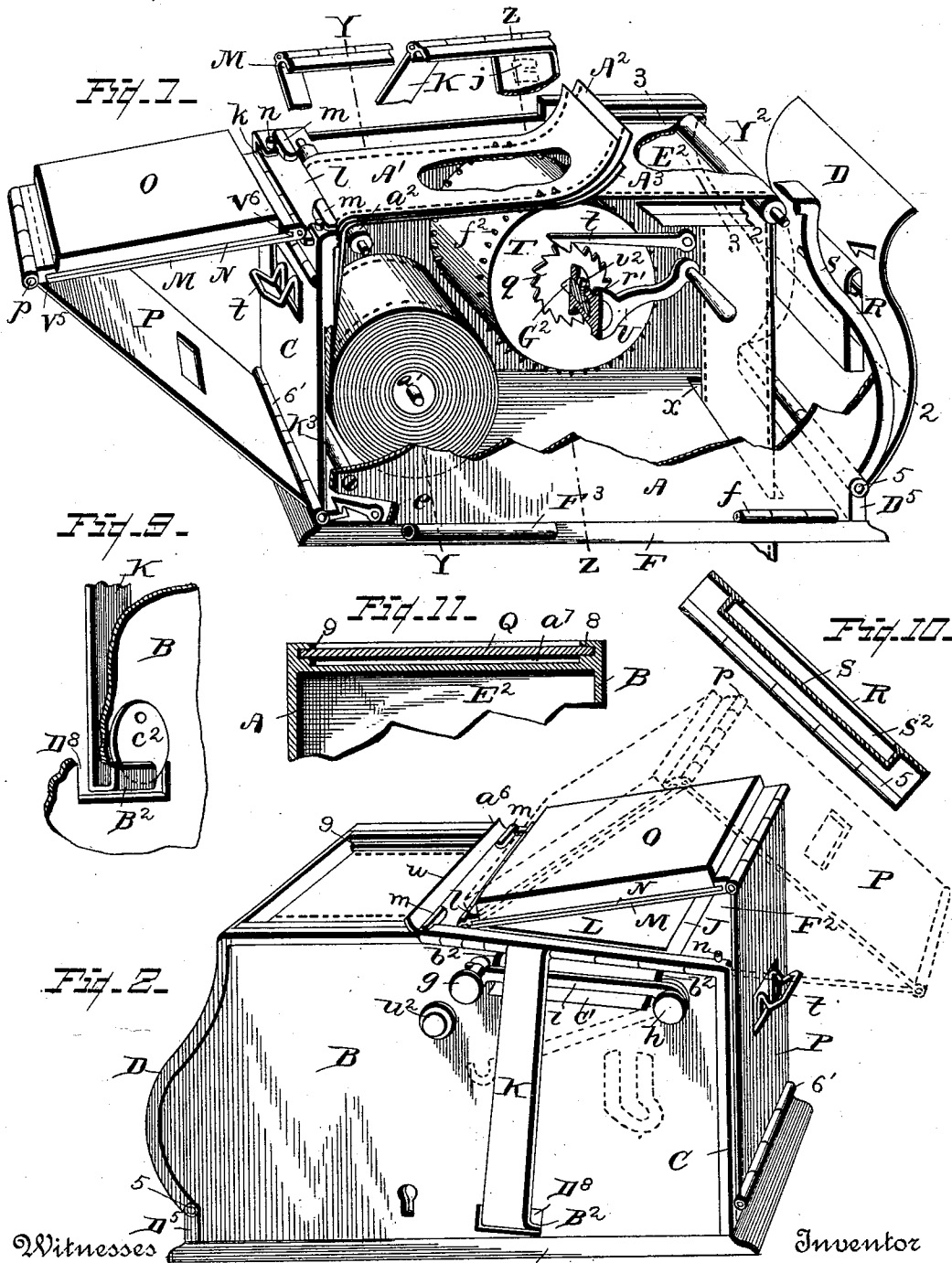
(No Model.)

2 Sheets—Sheet 1.

J. KIRBY, Jr.
DUPLICATING REGISTER.

No. 469,665.

Patented Feb. 23, 1892.



Witnesses
Albert Spiden.
Relle Eliott.

Inventor
John Kirby, Jr.
By his Attorney
Wm Hunter Myers

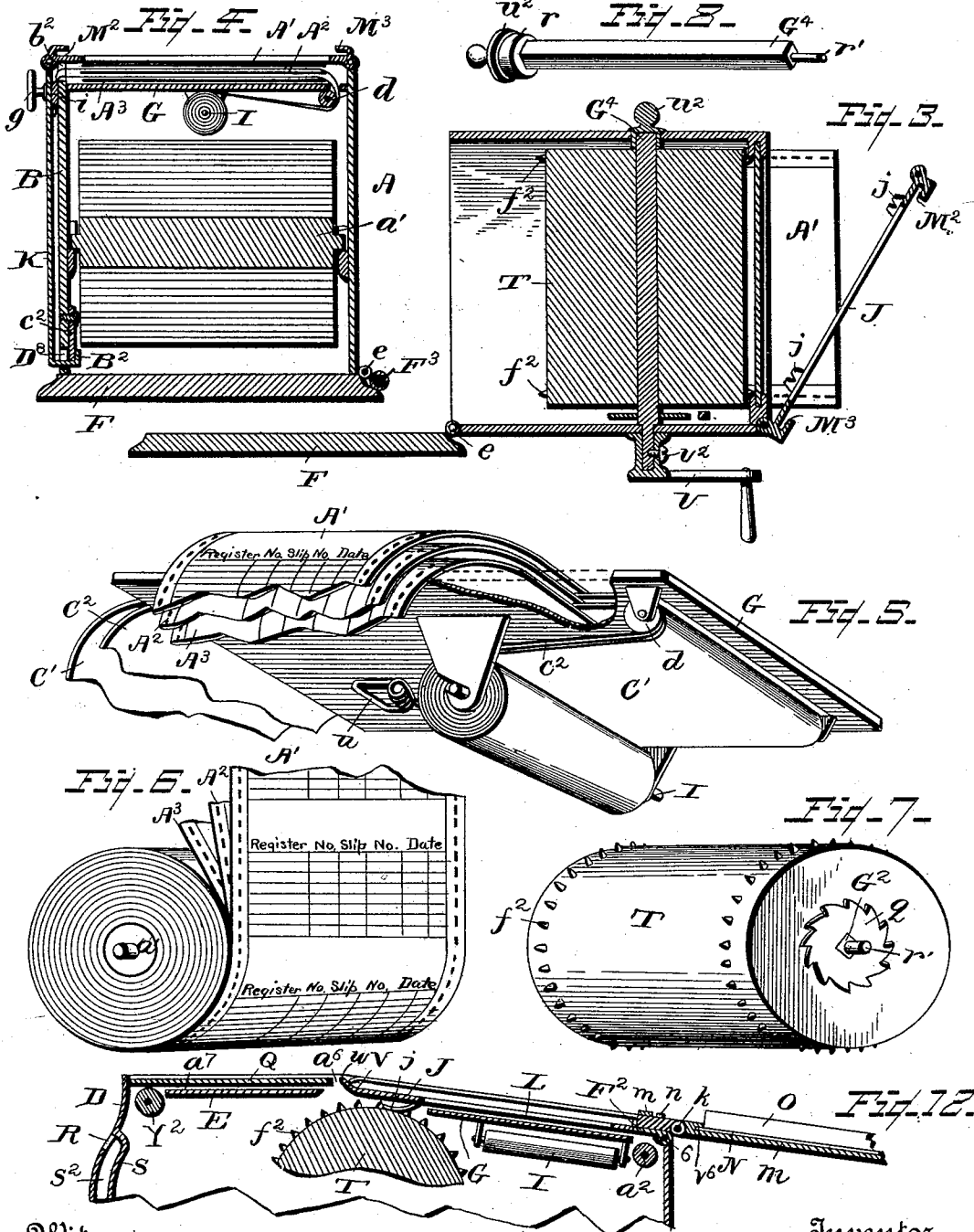
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UNITED STATES PATENT OFFICE.

JOHN KIRBY, JR., OF DAYTON, OHIO.

DUPLICATING-REGISTER.

SPECIFICATION forming part of Letters Patent No. 469,665, dated February 23, 1892.

Application filed January 15, 1889. Serial No. 296,459. (No model.).

To all whom it may concern:

Be it known that I, JOHN KIRBY, JR., of Dayton, county of Montgomery, and State of Ohio, have invented certain new and useful

Improvements in Duplicating-Registers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon.

The improvement relates to a class of registers in which two or more strips of paper are unwound from a delivery-reel and interposed by manifolding-sheets of paper or other material, the strips being separated after passing the manifolding-sheets, the lower strip passing to a place of concealment and the upper strip or strips to without the register-case, where the portion written upon may be severed from the remaining portion of the strip or strips.

Its objects are to provide simple and effective means for feeding the strips through the register and permit the under one to be wound upon a receiving-reel or stored in a suitable receptacle; to provide a storage-receptacle for strips upon which errors have been made or for other reasons it may be desirable to preserve in order to show all the writing done upon the strips, and to provide a means for holding a pad of paper upon which figuring may be done, together with certain other improvements, which will be hereinafter fully described.

In the drawings, Figure 1 is a perspective view of the register with its side broken away, showing the mechanism within the case, its hinged top in a raised position, and the front end of the case partially open. Fig. 2 is a perspective view of the register, showing the opposite side to that shown in Fig. 1, and the arm-rest and tablet-holder in the position they occupy when the register is not in service, the dotted lines representing the rear end of the register-case swung open. Fig. 3 is a cross-section through line Z Z of Fig. 1 and representing the register as swung open at right angles with its base. Fig. 4 is a cross-section through line Y Y, showing the register in its normal or operating position. Fig. 5 is a perspective view of the under side of tablet-plate upon which the writing is done and shows the manifolding and tablet strips of paper in their

operating positions. Fig. 6 represents the tablet-strips, three of which are wound together in one roll. Figs. 7 and 8 represent the feed-roller and its journal. Fig. 9 is a perspective view of a portion of the inside of the case, showing the manner in which the hinged clasp is locked to the case. Fig. 10 is a cross-section showing the pocket through line 2 2 of Fig. 1. Fig. 11 is a cross-section of the glass plate and its supports, taken through line 3 3 of Fig. 1. Fig. 12 is a longitudinal section of the upper portion of Fig. 1, the paper strips being removed.

Similar letters and figures of reference denote corresponding parts in the several figures.

A B represent the sides, C the rear end, D D⁵ the front end, and F² J E² the top, of the register-case. D⁵, E², and F² are each secured to the sides A B and, together with a bar K³, hold the case firmly together. D D⁵ C F² are hinged together, as shown at 5 6, and the case is hinged to base F at e f, which construction affords ready access to all parts of the register, the whole being locked in their proper places by suitable catches.

G is a plate which supports the paper strips while being written upon, and is located as shown in Figs. 4 and 12, being supported by bearings. (Not shown.) On the under side of this plate is mounted a roller I, around which one or more strips of carbon-paper or other manifolding material is rolled, and which passes over roller d and in turn crosses over the upper side of plate G between strips A' A² A³, that receive the impression, to the opposite side of the case, where the ends of the manifolding-strips are held by means of set-screws g h and bar i. Thus the operator can renew the same, when required, by loosening the set-screws and drawing a fresh supply from off the roller I without opening the register-case. The side B of the case is cut away at b² sufficient to allow the manifold-sheets to pass freely under top J. A light spring u serves to keep the roller I in place and prevents slacking of the manifold-strips. a' represents a roller, which may be mounted in any convenient manner, and around which three strips A' A² A³ are wound, the strips being perforated near their edges, their free ends being drawn upward over and along the

roller a^2 and plate G by revolving roller T, whose circumference is provided with series of studs or teeth f^2 to engage with the perforations in the strips, thus feeding the strips through the register by turning crank U. The strips may, however, be rolled upon three rollers, or any number of strips may be used to meet the requirements of the case. The roller is mounted on a square spindle G^4 , having journaled ends r r' , which revolve in the sides of the case between the shoulder u^2 and the end of crank U, the latter being attached by a screw v^2 . A ratchet-wheel q is attached to feed-roll T, and in connection with pawl t' prevents a reverse motion of the same. Top plate J is hinged to the casing and has an opening L, through which the writing is done, and is provided with hinged clasp K, whose lower end is made in the form of a hook B^2 , which passes through an opening D^8 in the side B of the register-case, and by means of pivoted button c^2 is securely fastened in place.

j j are springs slotted to clear teeth f^2 of the roller T and prevent the strips from freeing themselves therefrom while being fed through the register. Hinged plate J is curved outward at V to allow the upper strip or strips to pass through opening a^6 to without the register, while the lower one passes under a glass plate Q, through the space a^7 , along over the top side of plate E^2 , which plate serves as a support for the paper, and roller Y^2 to its place of concealment, which may be a receiving-reel (not shown) or a suitable receptacle either within the register-case or beneath it, a slot X being cut through base F, through which the strip may pass. The curved edge w of plate J is sharpened, so that slips can readily be severed from the main strips. The upper strip is by preference ruled in form, leaving a blank space for advertising or other printed matter. The words "Salesman No.," "Slip No.," and "Date" are printed upon the top strip and blank spaces left to be filled in by the salesman, as more clearly seen in Fig. 6, the writing being done on top strip A' . An impression is also made on strips A^2 and A^3 by reason of the interposed manifold strips U' and C^2 .

The glass plate Q permits the operator to see when he has made a distinct impression, and is supported in grooves 8 9 at each side of the register and held in said grooves by a stop (not shown) at one end of said grooves and by the hinged end D at the opposite side. When hinged end D is open the glass can be withdrawn from the case.

R is a slot cut through end D, and S is a plate arranged on the inside of D, forming a pocket S^2 for the storage of such erroneous slips as may be severed from the main strips and which it may be desirable to preserve.

M is a plate provided with grooves V^5 V^6 to receive a piece of pasteboard N or other material, upon which is mounted a pad of paper O for the operator to figure upon. Plate M

is hinged at k to a sliding plate l , which slides in corresponding grooves M^2 M^3 on the upper side of hinged top J.

m n are projecting lugs, which, in connection with studs n n , form a stop to prevent the slide from being drawn too far back, but which admits of its being drawn far enough to allow hinged top J to be opened and closed.

P is a support for plate M, and is hinged to same at p . It is also hinged to end of casing c at $6'$, by which connection-plate M, with its pad O, can be folded up and made to cover the opening L when the register is not in use, thus preventing unauthorized persons from writing on the strips. These several parts may be secured in this position by means of a suitable catch similar to the one shown at t . Thus when the several parts are in the position shown in Fig. 1 they serve the dual purpose of an arm-rest and pad-holder, and when folded up, as shown in Fig. 2, they cover the opening in the register-top, as hereinbefore described.

F^3 , Fig. 1, is a hollow tube whose function is to hold a pencil, and may be attached to any convenient part of the register.

The operation of my improved register is as follows: The manifolding-sheets and the strips to be written upon being in the positions shown in Figs. 4 and 5, the top strip is written upon, producing the impression, also, on the lower strips. The serrated roller is then partially revolved, effecting the movement of all the strips in the direction described, the upper strips passing out from the case, as indicated in Fig. 1, where the slips are severed from the main strips, leaving a new slip in position to be written upon, the lower strip accumulating upon a reel or in a receptacle, as hereinbefore described. When it is desired to remove the accumulation, the case is unlocked and turned over, as shown in Fig. 3, the fastening of hinged end D is then released, when the strip can be separated.

Any suitable means may be used for mounting the roller a' . The feed-roller T, I have shown mounted as I consider best adapted to the purpose; but any desired mechanical change may be made in this and other details of construction without affecting the invention herein claimed.

I am aware that registers of the class herein described have been made and used by others, and I disclaim all features of such registers.

Having thus fully described my improved apparatus, I claim—

1. In a register, a case having an opening in its top and a writing-tablet below the opening, in combination with an arm-rest hinged to the case and adapted to be moved over the said opening.

2. In a duplicating-register in which a writing-tablet, a plurality of strips of paper, and interposed manifolding material are employed, the combination, with the case having an opening in its top through which the entries on the strips of paper are made, of a folding

arm-rest hinged to the case and adapted to cover the said opening.

3. In a duplicating-register in which a writing-tablet, a plurality of strips of paper, and interposed manifolding material are employed, the combination, with the case having an opening in its top through which entries on the strips of paper are made, of a folding arm-rest, of which one portion is hinged to the end of the case and another portion is adapted, when desired, to be moved over the opening in the top of the case, both portions being hinged together.

4. In a duplicating-register in which a writing-tablet, a plurality of strips of paper, and interposed manifolding material are employed, the combination, with the case having an opening in its top through which entries on the strips of paper are made, of a folding arm-rest, of which one portion is hinged to the end of the case, and another portion, provided with means for holding a writing-pad, is adapted, when desired, to be moved over the opening in the top of the case, both portions being hinged together.

5. In a duplicating-register in which a writing-tablet, a plurality of strips of paper, and interposed manifolding material are employed, the combination, with the case having an opening in its top through which the entries on the strips of paper are made and longi-

tudinal grooves in its sides above said opening, of an arm-rest comprising a support hinged to the end of the case, a plate hinged to the support, and a slide working in the grooves in the case and hinged to the plate.

6. In a duplicating-register, the combination, with a case having a longitudinal opening in one side, of a roller bearing a plurality of strips of paper, a writing-tablet for supporting the strips while being written upon, a roller around which one end of suitable manifolding material is wound, and a pivoted clamping device on the outer side of the case for securing the free end of the manifolding material passed through the said opening.

7. In a duplicating-register embracing a roller carrying a plurality of strips of perforated paper, a feed-roller having studs adapted to engage the perforations in the paper to move it through the machine, a writing-tablet, a roller carrying manifolding material, a casing having a hinged top, and slotted springs carried by the top and adapted to straddle the said studs, whereby to keep the paper in its proper position with relation to the feed-roller.

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Witnesses:

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FRANK C. BARKS.