

(No Model.)

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AUTOGRAPHIC REGISTER.

No. 531,627.

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Fig. 1.

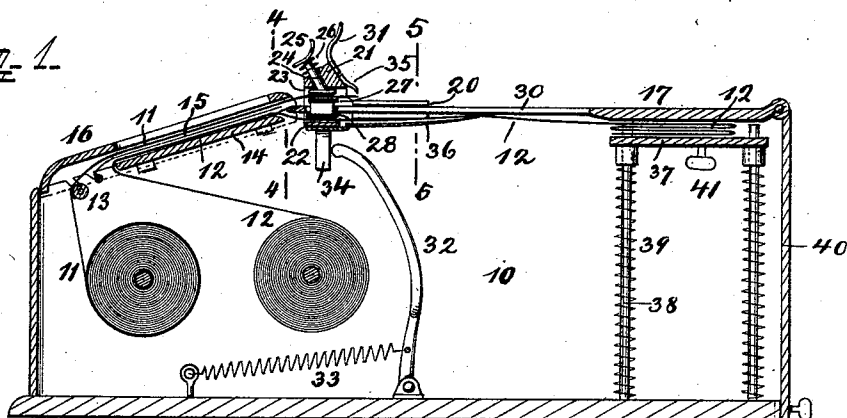


Fig. 2.

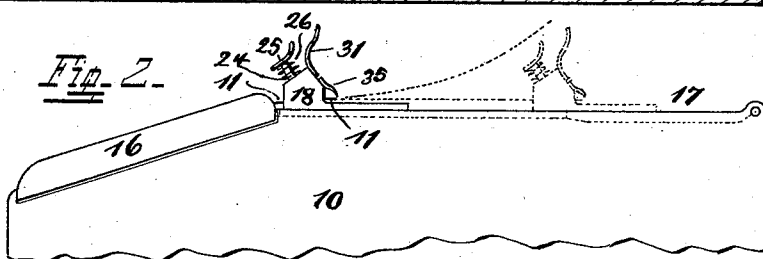


Fig. 3.

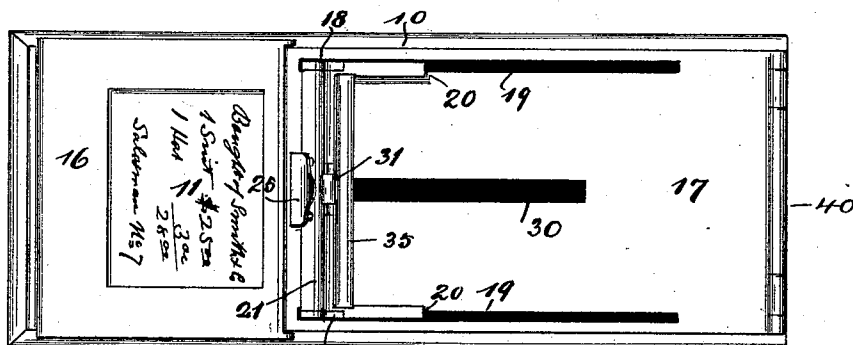


Fig. 4.

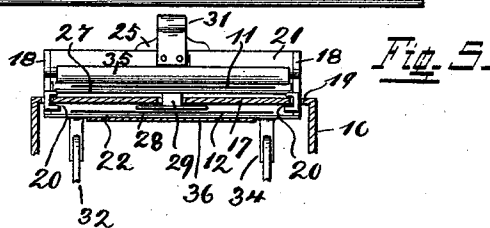
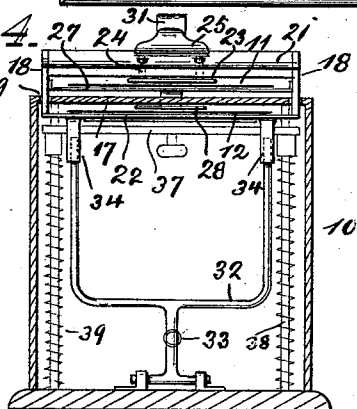
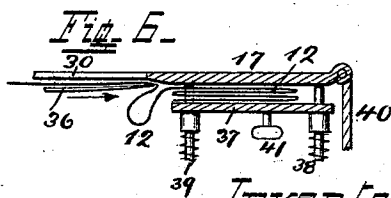


Fig. 5.



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UNITED STATES PATENT OFFICE.

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SPECIFICATION forming part of Letters Patent No. 531,627, dated January 1, 1895.

Application filed September 27, 1894. Serial No. 524,317. (No model.)

To all whom it may concern:

Be it known that I, CHARLES ELLERMAN, a citizen of the United States, and a resident of Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Autographic Recorders; and I do declare the following to be a clear, full, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of this specification.

This invention relates to improvements in autographic copying and recording apparatus, a class of devices where simultaneously with the writing of one document, one or more identical copies are produced. They are generally used in stores and places of business where it is customary to record for various reasons and purposes, on slips, or checks, the items of each transaction or sale, the notation on such slips also producing at the same time one or more autographic copies. The original is usually handed to the purchaser while the copy is retained by the establishment for future reference in case such ever becomes necessary for any reason. The devices used for this purpose consist substantially of a case, containing and supporting paper which is in form of strips wound up in rolls and of which there are as many as checks or copies are required, a shelf or tablet on which the writing is done and which supports the paper and copying medium during this act, means to move and guide the paper to and from the tablet, means to hold the copying medium in position, means for storing the retained copies where they are disposed of in such manner and other structural elements necessary to such a construction.

My invention relates to devices of this kind and it consists substantially of a new construction whereby the paper-strips are unwound from the rolls and moved successively, as checks are required, to and from the writing-tablet and of new mechanism whereby the strip containing the copies to be retained, is folded and stored away, one copy after the other, in form of a package, consisting of, accordion plaits, whereby the whole strip re-

mains intact, but permits the package to be opened at any point like a book for the purpose of permitting ready access to the copy of any particular check.

In the following specification and particularly pointed out in the claims, is found a full description of my invention, its operation, parts and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1, is a sectional side-elevation, showing the device complete. Fig. 2, is an outside elevation of the upper part of it. Fig. 3, is a top-view of the same. Fig. 4, is a vertical section on line 4—4, of Fig. 1, looking rearwardly. Fig. 5, is a similar view taken on line 5—5 of Fig. 1, looking to the front. Fig. 6, is a sectional view, showing the paper in the process of folding.

10, is a suitable case, which contains in its front-part the paper-rolls 11, and 12, suspended on rollers in a manner to permit their free rotation as the paper is unwound. The strip 11, from roll 11, passes over a guide-roller 13, and then rearwardly over a shelf or writing-tablet 14. Below this strip and suitably held in position, lies the transfer medium 15, also passing over the writing tablet and consisting of an inked or otherwise prepared sheet of paper or linen. Below it and directly on writing tablet 14, lies paper-strip 12, coming from roll 12, and passing around the front-edge of the tablet continues on rearwardly.

16, is a top-frame, covering the front part of the top of the case, the writing tablet and paper thereon, but is cut out over the writing-tablet, the resulting opening being of a size to expose of strip 11, sufficient paper to permit a check of being filled out. The writing out of the latter produces at the same time, by means of the transfer medium 15, below, an autographic copy on strip 12 below the transfer medium.

Top 16, is removable and may be lifted up whereby access is had to the transfer sheet and to writing-tablet 14, which are also removable and give then admittance to the interior of case 10, for supplying new paper-rolls, or for any other purpose. From the writing-tablet the paper-strips continue rearwardly, strip 11 passing above and strip 12

below a top 17, which covers the rear-part of case 10. The strips also pass, each one, through a clamp, carried by a reciprocating slide, which is constructed as follows: The vertical sides or ends 18 of this member pass through slots 19, in top 17, and are horizontally extended, which extensions have grooves 20, by which they embrace one of the edges of top 17, within slots 19, for the purpose of supporting and guiding the slide. These sides 18 are rigidly connected to each other, above by a bridge 21, and below by a cross-piece 22. Between this latter and the under side of top 17, is sufficient space to permit the lower paper-strip 12 to pass freely.

23, is the upper member of the clamp for the upper paper-strip, being carried by guide-rods 24, which are connected above bridge 21, by a pusher 25, and is normally held up by springs 26.

27, is the lower member of the clamp for the upper paper-strip, which passes through between the two and over top 17, such lower member reaching clear across from one of the sides 18 to the other one, being connected to and supported by them.

28, is the upper member of the clamp for the lower paper-strip and is supported on member 27, by means of a block 29, reaching through a slot 30, in top 17, of the case. The lower member of this clamp is formed by cross-piece 22. Slot 30, as well as slots 19, are of a length which is sufficient for the full movement of the slide, the length of which movement corresponds obviously with the length of the check.

Member 27, of the upper clamp is elastic, for which purpose it is preferably made of a thin steel-band from which it will be understood that if pusher 25, is depressed, the upper clamp is not only closed but by reason of the elasticity of member 27, causes also the lower clamp to close so that the two paper-strips are gripped simultaneously.

After a check has been filled out on the tablet, the clamps are closed as described, the hand or thumb which executes this action remaining on pusher 25, and continuing its action in the same direction causes a rearward movement of the whole slide with the clamps closed, whereby the two paper-strips are carried with it, being drawn from the rolls over the writing tablet. When the full limit of the motion has been reached, pusher 25 is released, whereupon the clamps open instantly by reason of springs 26, and elastic member 27, so that when the slide returns, the two paper-strips remain in their advanced position, being not affected by the now open clamps, which pass freely over said strips. The return of the slide may be effected by hand by means of a pull 31 on bridge 21, or it may be altogether automatic by means of a lever 32, acting by means of a spring 33, against lugs 34, depending from the under side of the slide. These two modes of return are however preferably combined, the spring being

merely relied upon to give a start or impetus to the hand-motion, the advantage resulting being the fact that by such an operation the hand or thumb on pusher 25 is compelled to relinquish its action whereby a prompt opening of the clamps and release of the paper results when the slide enters upon its return-motion. After such return, the drawn out end of strip 11, which now lies over top 17, and constitutes the check, is lifted against the edge of a knife- or tearing blade 35, connected to bridge 21, and thereby torn off. The lower strip with the copy of the check remains in the position to which it has been advanced until the next operation of the machine, when so much of it as is occupied by said copy is doubled up and folded by a folding blade 36, carried by the reciprocating slide and preferably connected to cross-piece 22.

37, is a yielding platform guided by rods 38, and held up against the under side of top 17, by springs 39, which are very soft and merely sufficient to carry the said platform and the paper accumulating thereon.

When the device is first made ready for use, the lower paper-strip is drawn out so as to pass over the folding-blade and over the platform, by which latter it is held against the under side of the top. The result of an operation by the reciprocating slide now is that that part of the lower paper-strip which stretches from the front-edge of the platform to the edge of the folding blade, at which points it is held against the under side of top 17, and being half of the check, buckles up or rather downwardly and as the folding blade advances, it shoves or tucks the paper in between the yielding platform and the under side of the top. (See Fig. 6.) As the paper accumulates on the platform, the upper layer of the paper-stack takes always the place of the platform as the other member between which the paper is folded, the former acting in such capacity only at the start.

Folding blade 36, has a slight upward elastic tendency which is sufficient by its friction against the under side of top 17, to carry the paper forward, but is not strong enough to overcome the friction between the confined paper, due to the slight upward pressure of the platform and therefore when returning, after having tucked the paper in, the latter remains readily in position.

As will be seen, each operation of the reciprocating slide which draws out a check above top 17, also folds up a copy of a check below, with this distinction however that the folding of the copies is one check behind the tearing off of the original, or in other words, the copy which corresponds with any check is not folded until the next operation of the machine when another check is drawn out. This condition is due to the construction of the machine and has no bearing whatsoever on its operation. It is merely mentioned incidentally and with the object to make this description as clear as possible.

The paper accumulated on platform 37 and containing the copies of the checks may be removed at the close of every day or at any other time, for which purpose access may be provided in any suitable manner.

In the drawings the rear-side 40, is shown hinged and may be used as a door for such purpose. For removal of the copies, the latter is opened and the platform is slightly depressed to release the paper and held by means of a knob 41, until the paper is removed, after which the knob is let go, when the expanding springs 39, raise the platform again to the top.

It is obvious that where no copy of the check is desired, or where its retention in the manner described, that is by folding, is not desired, the lower clamp, respectively the yielding platform 37, may be dispensed with. Again where more copies are desired, the case may be made larger to contain additional paper-rolls and more copying-sheets may be provided, the extra copies passing out above top 17.

Having described my invention, I claim as new—

1. In an autographic recorder, the combination of a suitable case, constructed and adapted to support paper in form of rolls, a writing tablet to support the unwound part of the paper while the writing is done, means whereby the paper is drawn out from the case and over the writing tablet, a top 17 rearwardly of the latter below which the drawn out paper from one of the rolls passes, a tearing blade above said top for removing the drawn-out paper which passes above the latter, a yielding platform with a normal tendency to maintain contact with the under side of top 17, a reciprocating folding blade with a similar tendency with reference to top 17, whereby the strip of paper which passes between it and the latter is folded or tucked in between said top and the yielding platform and means to support a copying medium between the paper strips and above the writing tablet.

2. In an autographic recorder, the combination of a suitable case, constructed and adapted to support paper in form of rolls, a writing tablet to support the unwound paper while the writing is done, means to support a copying medium above the tablet and between the paper, a reciprocating slide carrying two clamps by which the paper is drawn out from the case and over the writing tablet and means to remove and dispose of the drawn out paper.

3. In an autographic recorder, the combination of a suitable case, constructed and adapted to support paper in form of rolls, a writing tablet to support the unwound paper while the writing is done, means to support a copying medium above the tablet and between the paper, a reciprocating slide carrying two clamps by which the paper is drawn out from the case and over the writing-tablet, a top 17 rearwardly of the latter below which the lower paper-strip passes, a yielding platform with a normal tendency to maintain contact with the under side of top 17, a reciprocating folding blade below this lower strip of paper with a similar tendency with reference to top 17, whereby this strip of paper is folded or tucked between the latter and the yielding platform and a knife-blade for tearing off the drawn out part of the upper paper-strip.

4. In an autographic recorder, the combination of a suitable case, constructed and adapted to support paper in form of rolls, a writing tablet to support the unwound paper while the writing is done, means to support a copying medium above the tablet and between the paper, a reciprocating slide, the sides of which are connected by a bridge-piece 21, which carries suitable knobs for operating, and a knife-blade, the movable member 23 of a clamp for the upper paper-strip, being also carried by said bridge, the elastic member 27 of the same clamp, supported between the sides of the slide, the upper member 28, of the clamp for the lower paper-strip, being carried by the lower member of the upper clamp, the lower member 22, of the lower clamp, a slotted top 17, on which the slide and its appendages is supported and guided, the members of the upper clamp reciprocating above, the ones of the lower clamp reciprocating below said top, which is rearwardly of and substantially in line with the writing tablet, a folding blade also carried by the slide but below the lower paper-strip and having at its front-edge a normal tendency to hold this lower paper-strip against the underside of top 17, and a yielding platform with a similar tendency with reference to top 17, the paper being folded or tucked in between the two by the folding blade.

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

CHARLES ELLERMAN.

Witnesses:

C. SPENGEL,
C. FINN.