

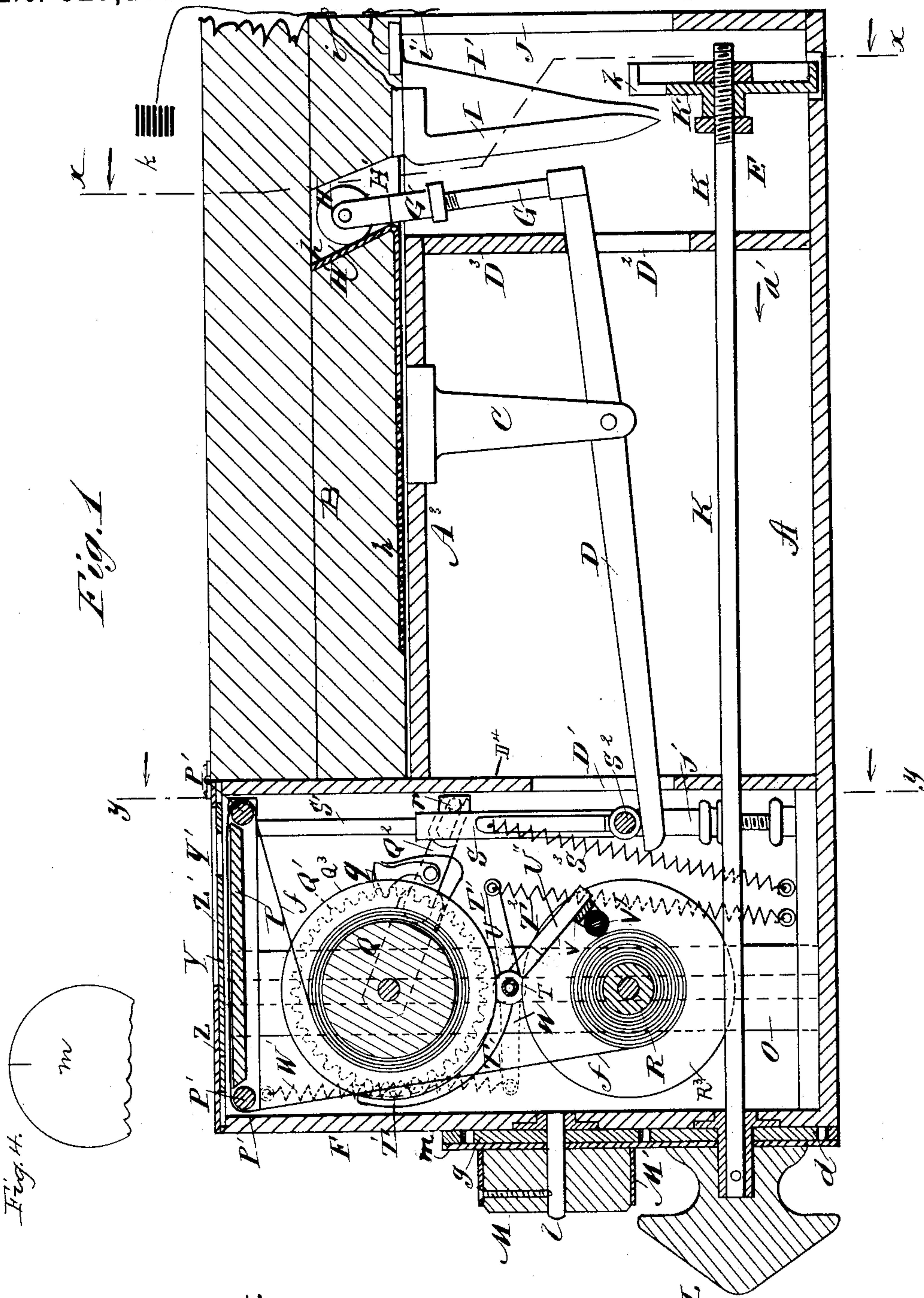
(No Model.)

2 Sheets—Sheet 1.

A. S. KEATING.
MONEY DRAWER AND RECORDER.

No. 327,175.

Patented Sept. 29, 1885.



WITNESSES:

C. Neveu
C. Sedgwick,

INVENTOR:

A. S. Keating

BY

ATTORNEYS.

(No Model.)

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Fig. 2

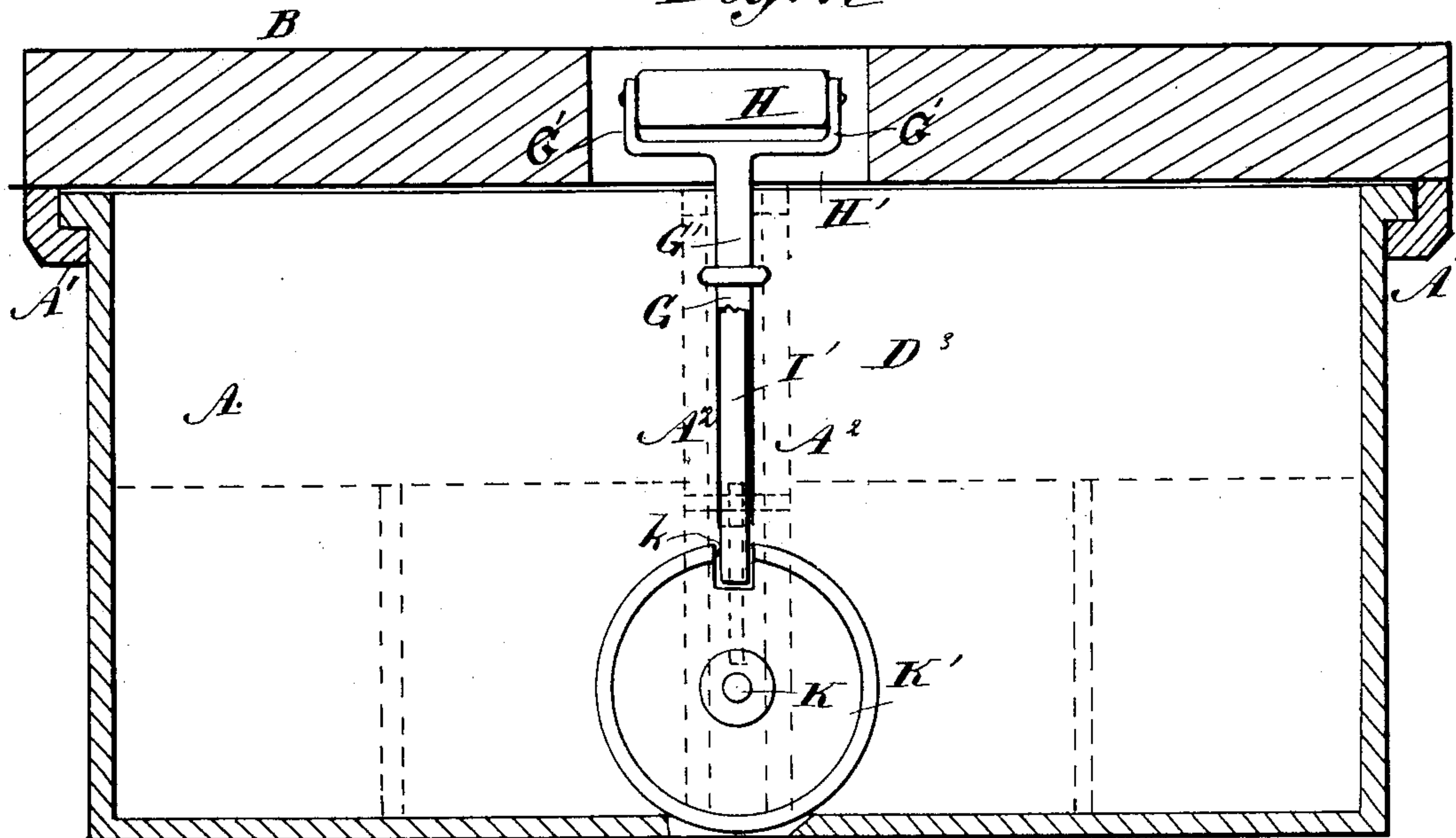
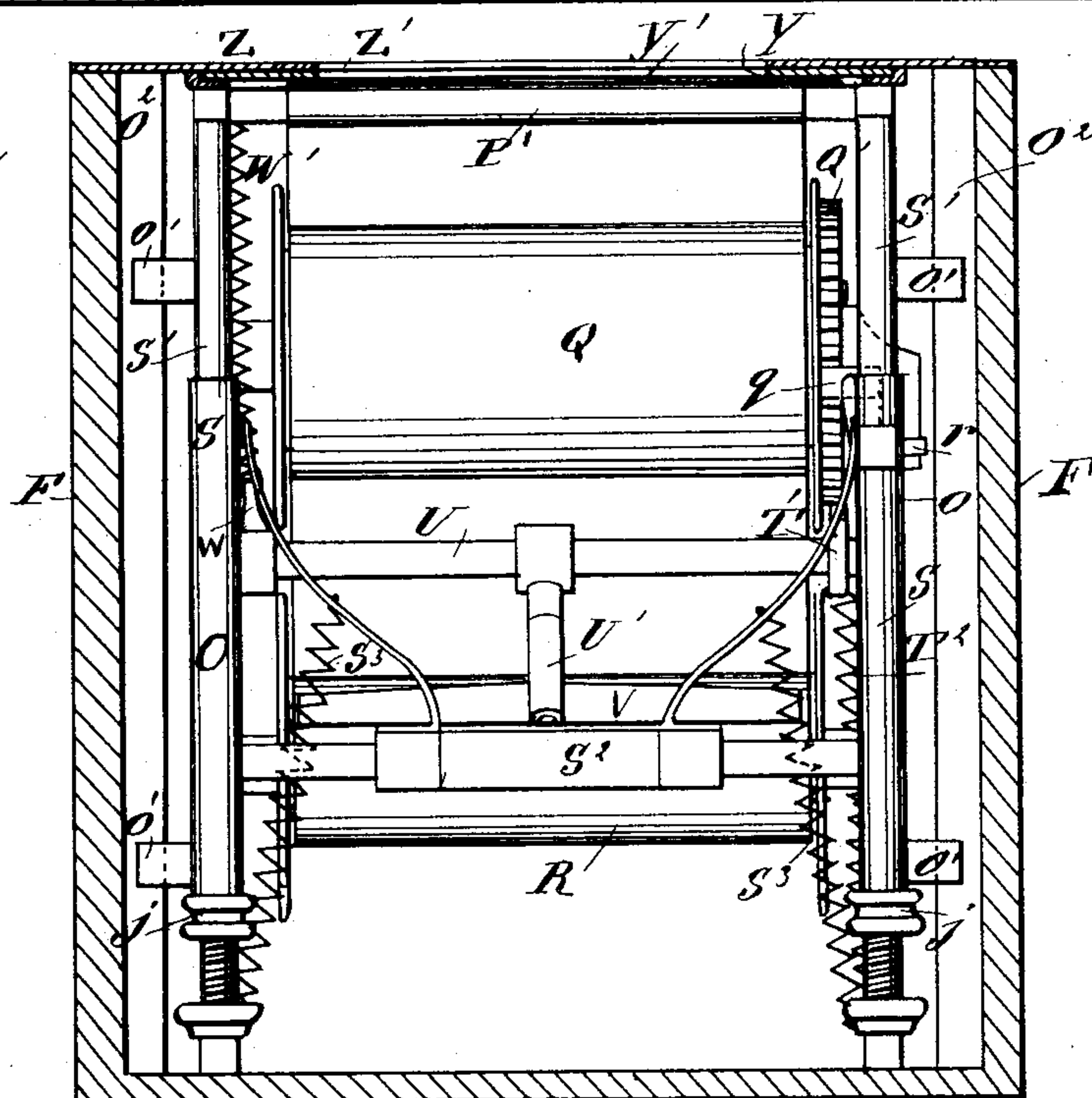


Fig. 3



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UNITED STATES PATENT OFFICE.

ALPHONSO STANLEY KEATING, OF CORRY, PENNSYLVANIA.

MONEY DRAWER AND RECORDER.

SPECIFICATION forming part of Letters Patent No. 327,175, dated September 29, 1885.

Application filed May 26, 1884. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSO STANLEY KEATING, of Corry, in the county of Erie and State of Pennsylvania, have invented a new and Improved Money-Drawer, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved money-drawer, which is provided with means for automatically giving a signal when the drawer is opened while the combination is set.

A further object is to provide certain devices for automatically feeding a strip or sheet of paper over the top of a box in front of the drawer, on which sheet the expenditures, &c., are to be noted.

The invention consists in the peculiar construction and arrangement of parts, as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming part of this specification, in which the same letters of reference indicate the same or corresponding parts in all the figures.

Figure 1 is a longitudinal sectional elevation of my improved money-drawer. Fig. 2 is a cross-sectional elevation of the same on the line *xx*, Fig. 1. Fig. 3 is a cross-sectional elevation of the same on the line *yy*, Fig. 1. Fig. 4 is a plan view of the gage-plate on smaller scale and partly broken away. Fig. 5 is a plan view of the graduated button.

The drawer A, which is in general of the usual construction, is held to slide in grooved cleats A', secured to the under side of the top plate, B, of the counter. The drawer is provided with two longitudinal partitions, A², having a top plate, A³, and from this top plate an arm, C, projects downward between the said partitions, in the lower end of which arm a lever, D, is pivoted, the free end of which projects through a vertical slot, D', in the front D⁴ of the drawer, and the rear end of which passes through a slot, D², in a transverse partition, D³, a short distance from the rear of the drawer, which transverse partition forms a compartment, E, in the rear of the drawer.

A box, F, is secured on the front of the drawer in such manner that the top of the

said box is flush with the top of the counter, the front end of the lever D projecting into the said box.

From the rear end of the lever D a rod, G, projects upward, on the upper end of which a fork, G', is screwed, between the prongs of which a roller, H, is pivoted.

In the under side of the top plate of the counter a transverse groove, H', is formed, which is beveled rearwardly from the top to the bottom, and has the side facing the front of the drawer covered by a piece of metal, *h*, which is also secured on the under side of the top plate of the counter, and forms a track on which the roller H can run.

Directly behind the slot H' a bar or prong, I, projects downward from the under side of the counter, to which it is secured, and a short distance behind the prong I a spring-strip, I', projects downward from the under side of the top plate of the counter, the lower ends of the prong I and the spring-strip I' being held a short distance from each other.

In the rear wall of the drawer a vertical slot, J, is formed through which the prong I and the spring-strip I' can pass. A spindle, K, is held to turn in the front and rear pieces of the box F and the partition D³ of the drawer, the front end of the spindle projecting from the front of the box, and the rear end being located within the compartment E, formed in the rear part of the drawer. On the rear end of the said spindle a disk, K', is mounted to turn with the spindle, which disk is provided in its rim with a notch or recess, *k*.

On the front end of the spindle K a cog-wheel, *d*, is rigidly mounted, which cog-wheel engages with another cog-wheel, *g*, mounted on a stem, *l*, projecting from the front of the box F above the spindle K. The cog-wheels *d* and *g* are held below a plate, *m*, held on the front of the box F.

A handle-knob, L, which is used to pull the drawer out, is rigidly secured on the outer end of the spindle K in such manner that by means of the said knob the spindle can be turned.

A button or disk, M, is secured on the stem *l* to turn with the same, and on the rim of the said button or disk M a rim-plate, M', is secured, the outer surface of which is divided

into eighths and sixteenths of an inch, and on the middle of the outer surface of the plate *m* a gage-mark is formed above the disk *M*.

In the box *F* a removable frame fits, which is formed of two side standards, *O*, having lugs *O'*, adapted to slide on upright guide-strips *O''*, secured on the inner surfaces of the ends of the box.

On the top of the frame a plate, *P*, is held, and parallel with the front and rear edges of the plate *P* rollers *P'* are journaled in the top piece of the frame.

Two rollers, *Q* and *R*, are journaled in the frame, of which the former is considerably larger in diameter than the latter, each roller being provided at each end with a circular disk, *Q''* *R''*.

A ratchet-wheel, *Q'*, is formed on one end of the roller *Q*, and outside of the said disk, and on the shaft of the roller *Q* a swinging arm, *Q''*, is loosely mounted on which is pivoted a spring-pawl, *q*, which rests against the teeth of the ratchet-wheel *Q'*. The free end of the arm *Q''* is forked, and between the prongs of the fork a pin, *r*, passes, which projects from one of two sleeves, *S*, held to slide on standards *S'* of the frame in the box, which sleeves are united by a cross-piece, *S''*, and are drawn down by springs *S'''*, connected with the base of the frame in the box *F*. The free end of the lever *D* rests beneath and against the said cross-piece *S''*, uniting the sleeves *S*. Adjustable sleeves *j* are screwed on the lower ends of the rods or standards *S'*, and by means of the same the cross-piece *S''* and the sleeves *S* on the ends of the same can be adjusted higher or lower—that is, the sleeves can be adjusted in such a manner that the springs *S'''* can draw the sleeves *S* and the cross-piece *S''* a greater or less distance toward the bottom of the box.

On a shaft, *T*, uniting the standards *O*, a pawl-lever, *T'*, is pivoted, one end of which engages with the teeth of the ratchet-wheel *Q'*, and the other end is drawn downward by a spring, *T''*, thus keeping the pawl *T'* engaged with the teeth of the ratchet-wheel *Q'*.

On a part of the shaft *T* a tubular shaft, *U*, is mounted, which is provided with a downwardly-projecting arm, *U'*, on which a cross-piece, *V*, is swiveled, in the ends of which a rubber-covered friction-roller, *V'*, is journaled. The shaft *U* is provided at one end with an arm, *W*, connected with a spring, *W'*, which pulls it upward, whereby the roller *V'* is pressed against the paper wound on the roller *R*. The top plate, *Z*, of the box *F* is hinged, and is provided with a longitudinal slot or opening, *Z'*.

Below the plate *Z* a plate, *Y*, is held, to slide in the direction of the length of the drawer, which plate *Y* is provided with a transverse slot, *Y'*, which is at right angles to the direction in which the drawer slides.

A roll of paper, *f*, is wound on the roller *R*, is passed over the two rollers *P'* *P'* and over

the plate *P* between them, and then the said paper is secured on the roller *Q*.

The prong *I* and the spring *I'* are connected by the wires *i* and *i'* with the opposite poles of an electric battery, *k*.

The operation is as follows: The paper is first secured on the drums or rollers in the manner just described, and when the drawer is ready for use the plate *Y* is adjusted a greater or less distance from the front edge of the top of the box *F*, whereby the slot *Y'* in the plate *Y* will be moved a greater or less distance from the middle of the top plate, *P*. The notched disk *K'* is adjusted on the spindle *K* in such a manner that the notch *k* will be at the top at the same time that a certain number on the rim *M'* of the disk *M* is opposite the gage-mark on the front of the plate *m*—for instance, at the number 8 or 8 and a fraction, as may be desired. This number is the combination-number and must be known to the person who is to open the drawer. The drawer is closed, the prong *I* and the spring *I'* passing through the notch *k* in the disk *K'*, so that the said prong *I* and the spring-strip *I'* will be in front of the said disk. The disk is then turned by means of the knob *L* in such a manner that the notch *k* will not be at the top. If the drawer is opened by a person not knowing the combination, or if the person knowing the combination forgets to turn the knob *L*, but pulls the drawer outward, the disk is moved within the drawer in the direction of the arrow *a'* and presses the spring-strip *I'* against the prong *I*, thereby closing the circuit and sounding an alarm by means of an electric bell, which bell may be in the main office or in one of the private rooms of the owners of the establishment, or located wherever desired. A number of drawers constructed like the one described above can be located in one circuit, and but a single bell will be required for a number of drawers; or each drawer can have a separate wire and annunciator. When the drawer is drawn outward—that is, in the direction of the arrow *a'*—the roller *H* is forced down the inclined front of the slot *H'*, thereby swinging the front end of the lever *D* upward. The lever raises the cross-piece *S''*, uniting the sleeves *S*, whereby the lever *Q''* is swung upward, and the pawl *q* moves the ratchet-wheel *Q'*, with which it is engaged, a greater or less distance, according to the throw of the cross-piece *S''*. The pawl-lever *T'* locks the ratchet-wheel *Q'* and its roller in place. By the above-described movement of the roller *Q* part of the paper *f* is wound on the roller *Q*, and a corresponding part is unwound from the roller *R*. Thus fresh paper shows below the slot *Y'*, and an entry is made by writing on the paper showing through the slot, and the drawer is then closed, whereby the roller *H* is pushed up in the slot *H'* by the action of the cross-piece *S''* on the front end of the lever *D*, and the said cross-piece, as well as the sleeves *S*, are drawn down by the springs *S'''*. The last

entry made shows through the slot Y' until the drawer is again pulled out, and the paper is again shifted in the manner described.

When the drawer is pushed back into its proper place, the prong I and the spring I' must be in front of the disk K', and in order to come into this position they must pass through the notch k in the rim of the disk K'; but the said prong I and spring I' can only pass through the said notch k when the disk K' has been adjusted in a proper position—that is, when the combination-number for which the lock is set is in proper position in relation to the gage-mark on the plate m.

Only a person familiar with the combination-mark of the drawer can close the same.

If the drawer is to be opened in such a manner that the signal is not to be given, the knob L must be turned to show the desired combination or number.

Instead of having a single combination, it is evident that a number of combinations can be used. The frame and entire mechanism in the box F can easily be removed in case a fresh roll of paper is to be secured on the rollers.

I can use a short lever to operate the ratchet in the paper-shifting device, so short as to have the roller work in an orifice in the front of the cover of the drawer. The beveled front on the counter or cover is used to operate the ratchet which moves and spaces the paper.

The lock herein shown and described forms no part of the present invention; but I reserve to myself the right to make a separate application therefor at some future time.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination of a money-drawer, a paper strip contained therein, a small portion of which is exposed to view, and a lever pivoted to said drawer and adapted to be operated by a stop on the counter to feed forward the paper strip, substantially as described.

2. The combination, with a drawer, of the rollers Q R, the top plate, P, a strip of paper secured on the rollers and passed over the top plate, a swinging arm provided with a pawl engaging with a ratchet-wheel on one of the rollers, a vertically-sliding frame connected with the said swinging arm, and means for operating the sliding frame when the drawer is pulled out, substantially as herein shown and described.

3. The combination, with a drawer, of the rollers Q R, the top plate, P, a strip of paper secured on the rollers and passed over the top plate, a swinging arm provided with a pawl, a ratchet-wheel on one of the rollers, a vertically-sliding frame connected with the said swinging arm, a lever pivoted in the drawer and acting on the said vertically-movable frame, and an arm on the inner end of the lever, which arm is pressed downward when

the drawer is pulled out, substantially as here-shown and described.

4. The combination, with a drawer and a vertically-movable frame, of rollers and a sheet of paper held on the rollers, means for revolving the rollers by moving the frame upward, a lever pivoted in the drawer and adapted to move the frame upward, and an arm on the inner end of the lever, which arm is moved downward when the drawer is pulled out, substantially as herein shown and described.

5. In a drawer, the combination, with rollers, a strip of paper secured on the rollers, a vertically-movable frame, and intermediate means for revolving the rollers, of the lever D, adapted to act on the said frame and pivoted in the drawer, the arm G on the inner end of the lever D, and the roller H, held on the upper end of the said arm, substantially as herein shown and described.

6. The combination, with a counter-top having an inclined slot, H', of a drawer containing rollers on which a strip of paper is secured, and means for revolving the rollers, a lever pivoted in the drawer and adapted to act on the means for revolving the rollers, an arm on the inner end of the lever, and a roller on the upper end of the said arm, which roller passes into the inclined slot when the drawer is closed, substantially as herein shown and described.

7. In a drawer, the combination, with a frame, of the top plate, P, the rollers Q R, and the swinging arm Q', the pawl q on the same, the uprights S', the vertically-sliding sleeves S, the cross-piece S', the springs S', the roller V', and the springs for pressing the said roller V' on the paper on the roller R, substantially as herein shown and described.

8. The combination, with a drawer, of a spindle extending through the same from front to rear, a disk provided with a notch and mounted on the inner end of the spindle, a handle-knob on the outer end of the spindle, and a prong projecting downward from the counter-top on which the drawer is held to slide, substantially as herein shown and described.

9. The combination, with a counter and its drawer, of a spindle passing through the same, a disk provided with a notch mounted on the inner end of the spindle, a prong projecting downward from the plate on which the drawer slides, a spring-strip projecting downward from the said plate and held a short distance behind the prong, and separate wires for connecting the prong and the strip with the opposite poles of a battery, substantially as herein shown and described.

ALPHONSO STANLEY KEATING.

Witnesses:

JOHN F. WESTROM,
JOHN GRIERSON.