A. M. BARRETT & W. F. STONE.

TIME STAMP.

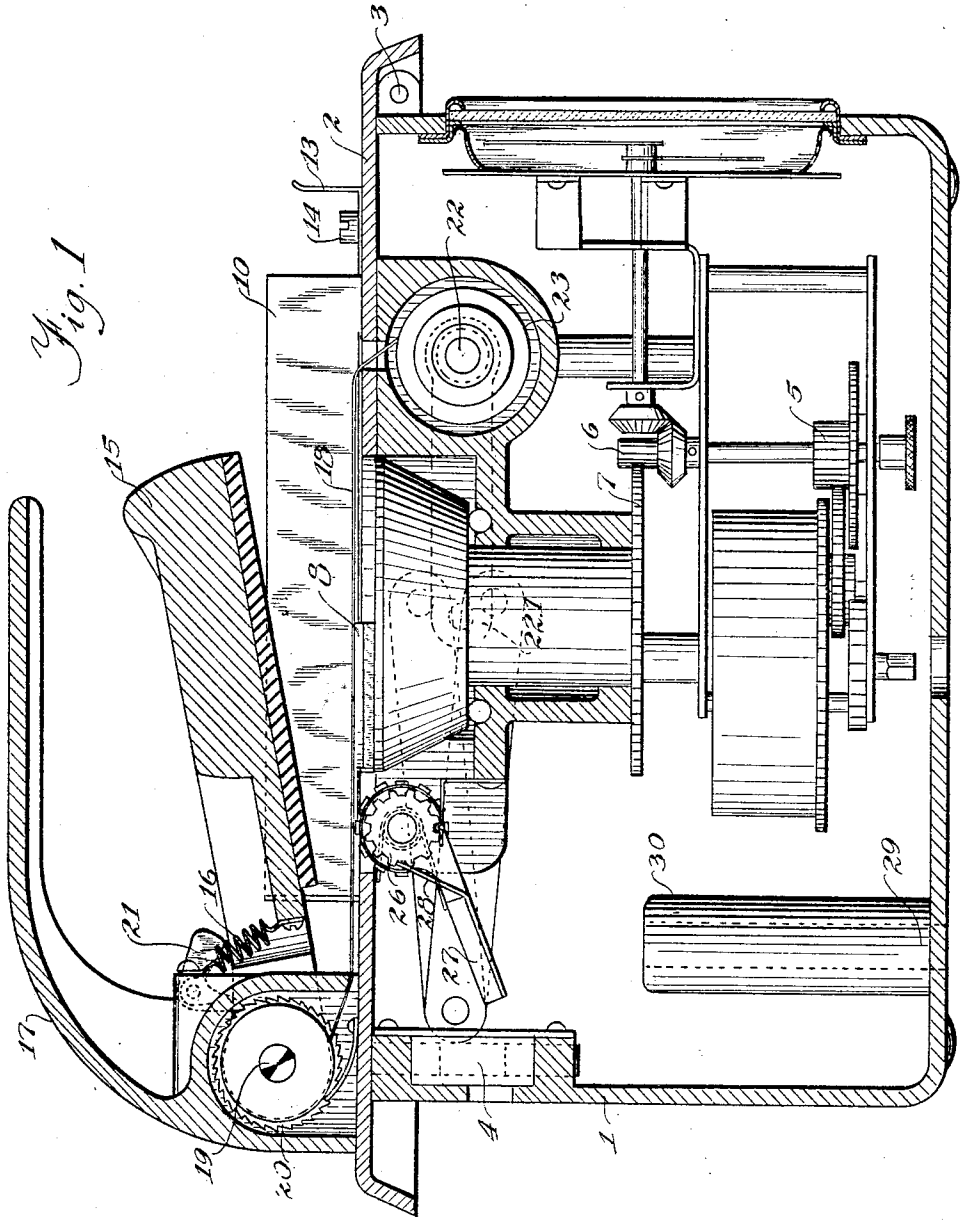
APPLICATION FILED JUNE 22, 1917.

1,271,004.

Patented July 2, 1918.

2 SHEETS—SHEET 1.

Fig. 1



Witness
George E. Schultz

Inventor,
Arthur M. Barrett and
Walter F. Stone,
By Rummler & Rummler Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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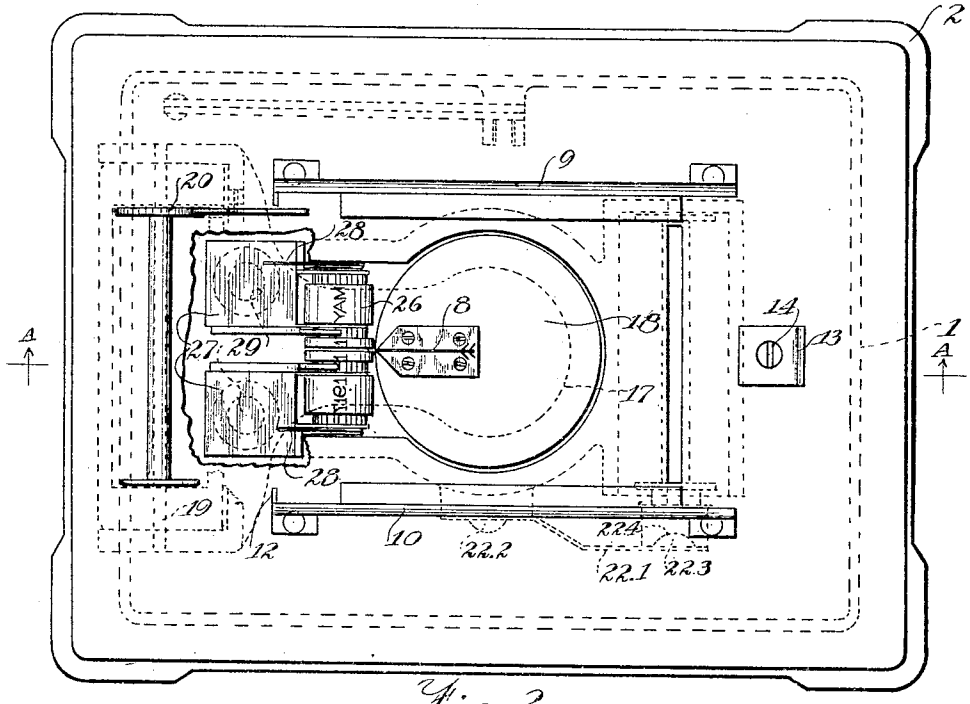


Fig. 2

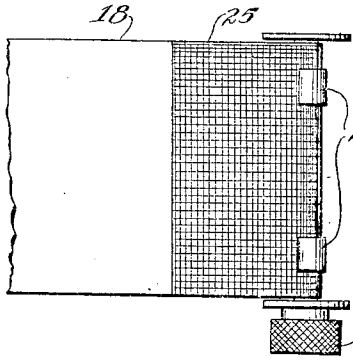


Fig. 3

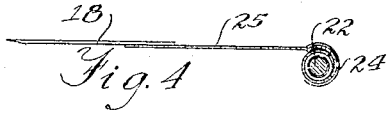


Fig. 4

Witness,
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Walter F. Stone,
By Rummler & Rummler, Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ARTHUR M. BARRETT AND WALTER F. STONE, OF CHICAGO, ILLINOIS; SAID STONE ASSIGNOR TO SAID BARRETT.

TIME-STAMP.

1,271,004. Specification of Letters Patent. Patented July 2, 1918.

Application filed June 22, 1917. Serial No. 176,385.

To all whom it may concern:

Be it known that we, ARTHUR M. BARRETT and WALTER F. STONE, citizens of the United States of America, and residents of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Time-Stamps, of which the following is a specification.

The main objects of this invention are to provide an improved construction for time stamps, including an improved means for safeguarding the clockwork from injury, an improved form of ribbon control, and improved means of regulating the dating mechanism of said stamp.

An illustrative embodiment of this invention is shown in the accompanying drawings in which—

Figure 1 is a cross section in elevation of the time stamp taken on the line A—A of Fig. 2.

Fig. 2 is a plan view of the time stamp with the guard shown in outline and part of the platen broken away.

Fig. 3 is a top view of the spool showing means for fastening the ribbon in the spool.

Fig. 4 is a side view of the ribbon fastener.

This invention relates particularly to time stamps designed to accurately record time and date permanently and in such a manner that intervals of time so recorded may be readily computed. It is used largely in factories where piece work is done and in which it is particularly desired to secure an accurate and true register of the actual amount of time spent on the particular job in hand. To secure the accurate recording and faithful reproduction of the time actually spent, the time stamp should be incapable of manipulation in any other than the prescribed way and yet be capable of ready and easy adjustment to coördinate the registration therein with the progress of time and date.

In the form shown, the time and date indicating mechanism is internally mounted in a casing 1 on the lid 2 which is hinged to the casing at 3 so that the lid carrying the mechanism may be swung open to expose the mechanism for adjustment or other purposes. The casing is provided with a lock 4 which makes it possible to positively prohibit any attempt to interfere with the working mechanism other than that expressly provided for and hereinafter mentioned. The timing mechanism is driven by a clockwork 5 which, by means of a wide pinion 6 meshing with gear 7, actuates a rotary type member preferably in the form of a pointer 8.

Improved means have been adapted to prevent a shock, resulting from quick operation of the time stamp, from being communicated to the clock mechanism by widening the pinion 6 to allow the gear 7 to slide longitudinally with respect to the pinion.

The lid of the casing is adapted to hold a card of predetermined size and shape securely in a definite position when it is desired to register thereon the time of beginning or ending a particular job. To prevent the card from being inserted out of alinement with the stamping mechanism guides of permanent and adjustable nature are mounted on the lid. Comparatively high walls 9 and 10 are permanently spaced as determined by the width of the card to be admitted and have abutments 11 and 12 against which one end of the card is pushed. A wall 13 provided with a slotted flange is slidably adjustable with respect to screw 14.

When the card is held in snug contact by the guards the operator depresses the weighted platen 15 so as to cause pressure to be exerted by the pointer 8 against the face of the card. The platen is normally held slightly raised above the pointer by a spring 16 as shown in Fig. 1.

A guard 17 is mounted on the lid and hangs over the platen to protect it from accidental blows which may cause an unintentional registration and further insures the mechanism from a violent blow or tap when the platen is depressed by the operator. Inasmuch as the time stamp is devised for quick and instant registration of the time, the guard is particularly necessary to prevent a violent striking of the platen by a careless or hurried operator. The overhanging end of the guard is handle-shaped as shown by dotted lines in Fig. 2, so as to also serve as a handle by which to lift and carry the time stamp.

Registration of the particular period indicated by the pointer 8 is reproduced on the card or work sheet by an inked ribbon 18 which passes between the pointer and the card. The ribbon is pulled over the pointer by a ribbon feed preferably housed

within the hollow base of the guard, and comprises a spool 19 having at one of its ends a ratchet wheel 20.

A pawl 21 is mounted on an ear of the platen and has contact with the teeth of the ratchet so that when the platen is depressed the pawl will rotate the spool and thus automatically pull the ribbon. The pawl is counterpoised to hold it normally in contact with the ratchet and prevent the spool from unwinding and allowing the ribbon to become loose. The ribbon is mounted at its other end on a free turning spool 22 which is prevented from overrunning by means of a tension spring 22.1. When it is desired to rewind the ribbon the lid is unlocked and pulled back and the interior mechanism is exposed permitting ready access to the knurled handle 23 of the spool 22.

Tension spring 22.1 is secured to the interior frame by a screw 22.2 and supports at its other end a button 22.3. The button 22.3 fits into and holds compactly a concavity 22.4 located in the handle 23 of the spool to prevent the spool from unwinding too freely and also to lock it into place. When it is desired to rewind, the spring is thrown to one side and the spool is rotated by means of its knurled knob.

The pawl 21 is also so counterpoised on the platen that when the lid is open the pawl swings free from the teeth of the ratchet to permit the free turning of spool 19 for rewinding of the ribbon.

Trouble has often been experienced in other devices providing for an automatic pull on the ribbon on account of the tearing of the ribbon from the spool when the end of the ribbon is reached. To obviate this difficulty the ribbon is frictionally attached by clips 24 which partially surround the core of the spool as shown in Figs. 3 and 4. Figs. 3 and 4 show an oilcloth 25 attached to the end of the ribbon, this being an easier substance to handle than the inked ribbon when the ribbon is being attached to the spool.

The dating mechanism comprises four dating wheels 26, consisting of a year wheel, a month wheel and two day wheels. The day wheels may be turned independently of each other to change the date to be recorded without unlocking the casing. Pivoted concentrically with the axis of the dating wheels are a pair of arms 27 which carry pawls 28, adapted to engage the teeth of the respective dating wheels, so that when an arm 27 is pushed upward the respective dating wheel is advanced one space. Holes 29 in the casing permit the insertion of a pencil or the like to push the arm 27 upward to rotate the dating wheel. Each hole 29 is surrounded by high walls 30 in order to direct the pencil to the respective arm of the dating mechanism and to prevent interference or tampering with the time stamp or other mechanism in the casing.

In the operation of the device, a card having previously printed thereon the spaced numerals 1 to 12 and intermediate time markings, in a circle according to a clock dial, is inserted between the platen and the type carrying elements. The platen is then operated to effect an impression from the date type carriers and the arrow 8, in whatever angular setting the arrow may be. Accordingly, the exact time of making the record is indicated on the printed card by the impression made by the arrow 8. The ink ribbon is fed during the downstroke of the platen by the pawl 21, pivoted to an ear of the platen, engaging ratchet wheel 20 on one of the ink ribbon supporting shafts.

Due to the location of the guard 17 and the limited space between the guard and the platen, the platen is most easily operated by the tips of the fingers of the operator. With this arrangement, it is impossible to give the platen a hard blow or hit it with the side of the fist.

In devices of this general class, the accuracy of the time mechanism is affected due to vibrations received from too hard operations of the platen. It may therefore be seen that the guard 17 serves a useful purpose and is essential to insure satisfactory service and long life of the apparatus.

Although but one specific embodiment of this invention has been herein shown and described, it will be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

We claim:

1. A time stamp comprising a clock, a rotatable printing member actuated thereby, a platen to coact with said member, an inked ribbon to pass therebetween, and means to automatically advance said ribbon over said member, including a spool at one end of the ribbon provided with a ratchet, a pawl on said platen to engage said ratchet and partly rotate said spool through the operation of the platen, a second spool at the other end of said ribbon, a casing normally inclosing said spools, a lid hinged to said casing, and means to automatically disengage said pawl through the opening of said lid to permit the ribbon to be rewound on said second spool.

2. A time stamp comprising a clock, a casing therefor having a hinged lid, a rotatable printing member mounted on said lid, a platen to tap said member, externally mounted on the lid of said casing, an inked ribbon to pass between said platen and member, a guard over said platen, a spool mounted in said guard to wind said ribbon, having a ratchet, a pawl mounted on said platen to turn said ratchet to wind the rib-

bon through the movement of said platen, a free turning spool attached to the other end of said ribbon to rewind the ribbon, said pawl being counterpoised to disengage said ratchet to permit the rewinding of the ribbon when the lid is raised.

3. A time stamp comprising a clock, a casing therefor having a hinged lid, a rotatable printing member mounted on said lid, a platen to tap said member, externally mounted on the lid of said casing, an inked ribbon to pass between said platen and member, a guard over said platen, a spool mounted in said guard to wind said ribbon, having a ratchet, a pawl mounted on said platen to turn said ratchet to wind the ribbon through the movement of said platen, a free turning spool attached to the other end of said ribbon to rewind the ribbon, a tensioning device to prevent said spool from turning too freely and to lock the spool in its casing, said pawl being counterposed to disengage said ratchet to permit the rewinding of the ribbon when the lid is raised.

4. A time stamp comprising a clock, a casing therefor having a hinged lid, a rotatable printing member mounted on said lid, a platen to tap said member, externally mounted on the lid of said casing, an inked ribbon to pass between said platen and member, a guard over said platen, a spool mounted in said guard to wind said ribbon, having a ratchet, a pawl mounted on said platen to turn said ratchet to wind the ribbon through the movement of said platen, a free turning spool attached to the other end of said ribbon to rewind the ribbon, a leaf spring mounted on the interior frame adapted to prevent said spool from turning too freely and to lock the spool in its casing, said spool and spring having interfitting socket and projection contact, said pawl being counterpoised to disengage said ratchet to permit the rewinding of the ribbon when the lid is raised.

5. A time stamp comprising a clock, a rotatable pointer actuated by said clock to indicate periods of time, an inked ribbon to pass over said pointer, all arranged to register impressions from said pointer upon a time card, a platen to tap the card, and a guard over said platen to prevent a violent blow on said platen.

6. A time stamp comprising a clock, a rotatable pointer actuated by said clock to indicate periods of time, an inked ribbon to pass over said pointer, all arranged to register impressions from said pointer upon a time card, a platen to tap the card, and a handle-shaped guard over said platen to serve as a handle for carrying the time stamp and to prevent a violent blow on said platen.

7. A time stamp comprising a clock, a rotatable pointer adapted to be moved by said clock and a dating device, all mounted in a casing adapted to be locked, an inked ribbon to pass over said pointer, mechanism for setting said dating device, including an actuating member, said casing having a hole through which a pencil or other similar object may be passed to coöperate with said member to change the date to be registered without unlocking the casing.

8. A time stamp comprising a clock, a rotatable pointer adapted to be moved by said clock and a dating device, all mounted in a casing adapted to be locked, an inked ribbon to pass over said pointer, mechanism for setting said dating device, including an oscillating, actuating member, said casing having a hole opposite said actuating member through which a pencil or other similar object may be passed to coöperate with said member to change the date to be registered without unlocking the casing.

9. A time stamp comprising a clock, a rotatable pointer adapted to be moved by said clock and a dating device, all mounted in a casing adapted to be locked, an inked ribbon to pass over said pointer, mechanism for setting said dating device including an oscillating actuating member, said casing having a hole opposite said actuating member through which a pencil or other similar object may be passed to coöperate with said member to change the date to be registered without unlocking the casing, elongated walls surrounding said hole and serving as guides to direct the pencil to the dating mechanism and to prevent it from interfering with the timing mechanism.

10. A device of the class described, comprising a clock, a type element driven by said clock, a manually operable platen for effecting impressions from said type element, and a guard in position to prevent said platen from being violently operated.

Signed at Chicago this 20th day of June, 1917.

ARTHUR M. BARRETT.
WALTER F. STONE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."