L. M. TODD.

PRINTING APPARATUS.

APPLICATION FILED JAN. 28, 1906.

982,752. **Patented Jan. 24, 1911.**

2 SHEETS—SHEET 1.

Fig. 4.

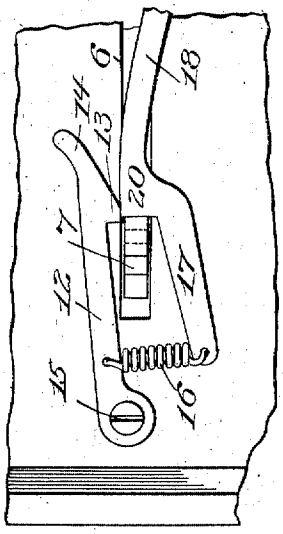


Fig. 1.

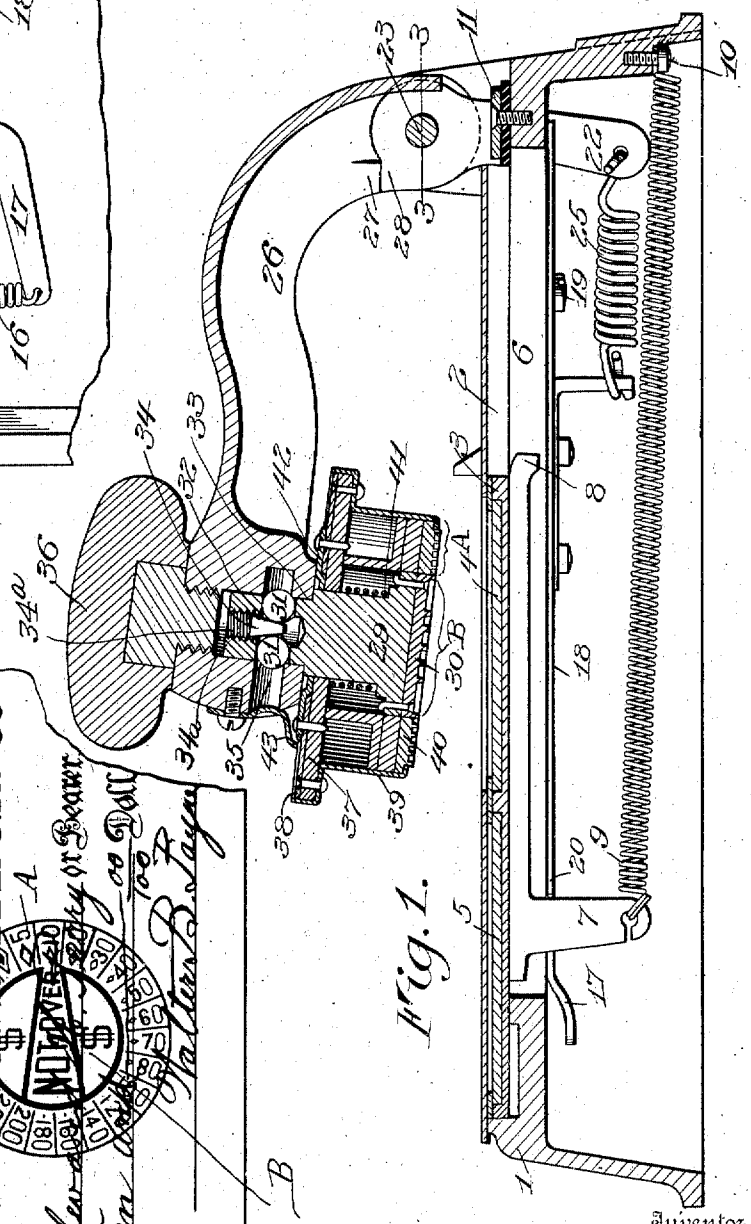


Fig. 5.

Witnesses.

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2 SHEETS—SHEET 2.

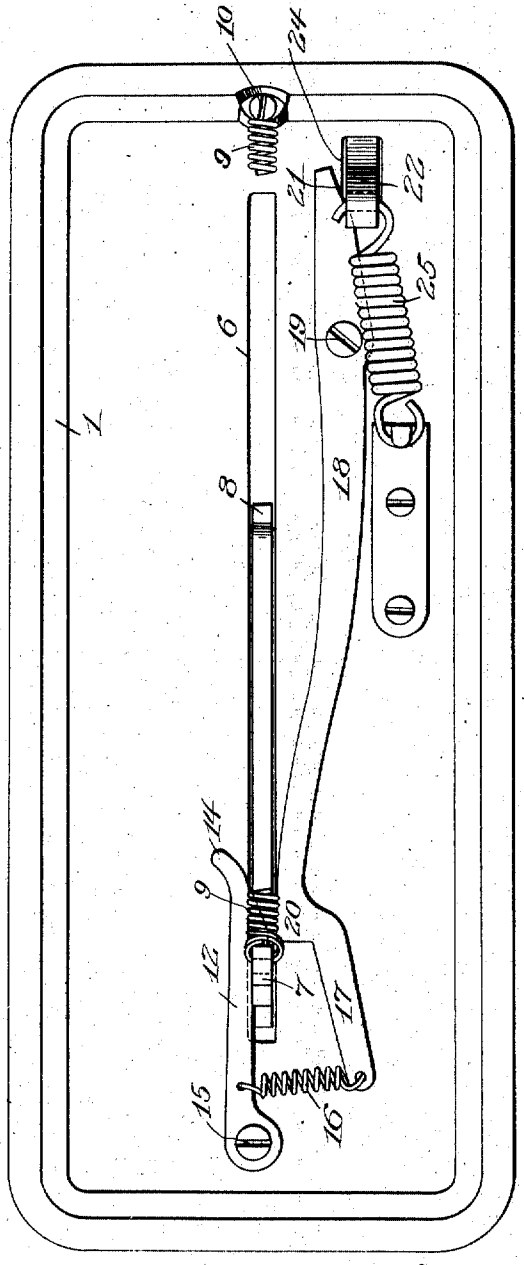


Fig. 2.

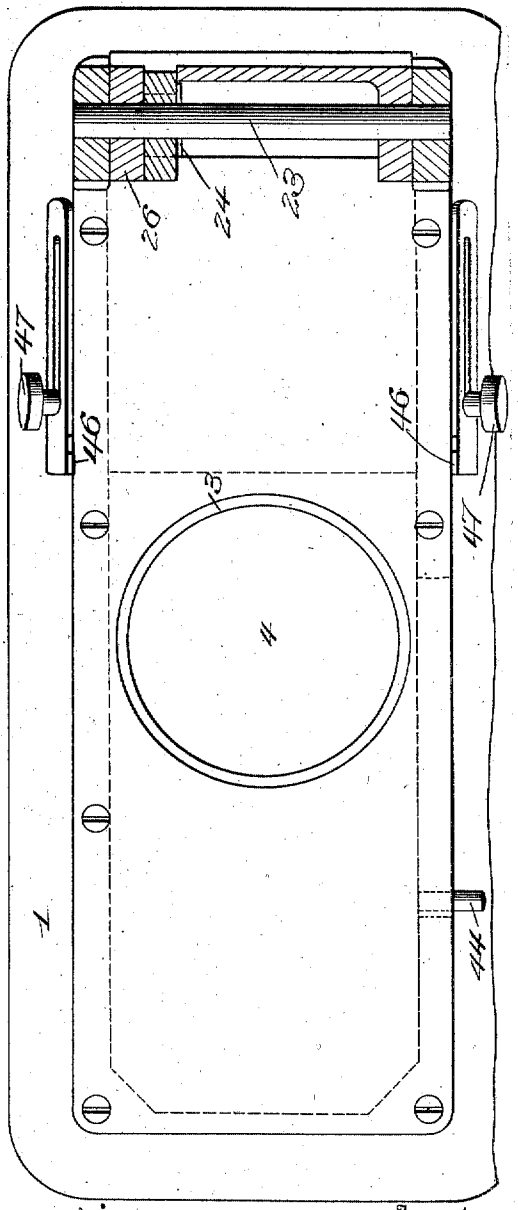


Fig. 3.

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PRINTING APPARATUS.

982,752. Specification of Letters Patent. Patented Jan. 24, 1911.

Application filed January 29, 1906. Serial No. 298,400.

To all whom it may concern:

Be it known that I, LIBANUS M. TODD, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Printing Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, and to the reference-numerials marked thereon.

My present invention relates to improvements in the art of printing, and more especially to the art of marking checks, drafts and other commercial papers or instruments with a distinguishing or limiting mark for preventing fraudulent alteration thereof.

The particular object of the present invention is to provide an improved device for marking various papers of the above description so that they will have an unalterable limiting mark for indicating the limit of value or time beyond which the instrument will be void, and also to provide an improved stamp whereby marks designating the proper limiting amount may be conveniently and effectually applied to checks, drafts or other papers.

To these and other ends the invention consists in certain new and useful improvements and combinations of parts, all as will be more fully explained, the novel features being pointed out in the claims at the end of the specification.

In the drawings: Figure 1 represents a central vertical section of a printing device constructed in accordance with my invention; Fig. 2 is a bottom plan view of the same; Fig. 3 is a top plan view of the device, the parts above the line 3—3 of Fig. 1 being omitted; Fig. 4 is a fragmentary view of the device showing the stop for controlling the operation of the inking pad and platen, and Fig. 5 represents a portion of a check with the limiting or distinguishing mark applied thereto.

I have shown one form of a printing device for applying the limiting or distinguishing mark embodying my invention, comprising a hollow base 1 having guides or ways 2 thereon to receive a reciprocatory slide 3, the latter having receptacles for an inking pad 4 near one end and a suitable platen 5 near its other end, a slot 6 being formed in the base to permit operation of a downwardly-projecting arm 7, and an abutment 8, said arm and abutment being attached to and movable with the slide 3. A spring 9 has one end attached to this arm 7 and its other end to a part of the base, as by a screw 10, the said spring normally operating to move the slide from the left toward the right, as shown in Fig. 1, a buffer 11 being provided at a suitable point to cooperate with a part of the slide after its release to arrest its movement without shock or noise. To the under side of the base is pivoted a stop 12 having a shoulder 13 adapted to engage behind the arm 7 on the slide to hold the latter in inking position against the action of its spring 9, an incline 14 being formed at one side of the shoulder to produce a latching action of the stop when the slide is moved into inking position. This stop is pivoted to the base at 15, and has one end of a spring 16 attached thereto close to its pivot, the latter having its opposite end connected to an extended arm 17 formed on the free end of a releasing member 18. This releasing member serves to knock off or disengage the stop 12 from the retaining arm on the slide to permit the latter to move from inking to printing position, and in its present form the releasing member is pivoted to the base at 19 to give it a swinging movement, in a direction transversely of the direction of movement of the slide, and opposite to the locking shoulder on the stop said member is provided with a knock-off projection 20, the shoulder formed by this projection being arranged at a somewhat greater distance from the pivot 15 than is the shoulder 13 on the stop 12, and the purpose of this will be described in connection with the operation of the device. The opposite end of the releasing member is provided with a cam surface 21 to coöperate with a dog 22, the latter being pivoted on the shaft 23 and extended through a slot 24 in the base, its free end having a spring 25 attached thereto for retaining it in coöperative relation with the cam on the releasing member.

The shaft 23 also supports the movable die or stamp carrier 26, the latter having a projection 27 thereon adapted to coöperate with a similar projection 28 on the dog 22 whereby the latter will be operated by the movement of the stamp carrier. Any suitable form of stamp could be employed in connec-

tion with the slide and its coöperating parts, but it is preferable to employ the improved form herein shown, which comprises a relatively fixed center 29 having a printing die 30 on its lower face which contains a suitable indicator, whereby the particular character representing a numerical or time value is designated. This center is non-revoluble, or in other words, is in fixed relation to the carrier 26, a suitable locking device which enables the center to be readily applied or removed being shown in the present embodiment, consisting of the locking balls or blocks 31 resting in transverse openings 32 in the center piece which projects into a suitable aperture 33 in the stamp carrier. A wedge or plunger 34 is fitted into an aperture formed axially of the center piece, and is operated by a suitable screw 34ª for spreading the balls 31 into the transverse recesses or apertures 35 formed in the walls of the stamp carrier. This screw may be conveniently operated by the use of a screw driver or other tool applied through the upper end of the aperture 33 of the carrier, the handle 36 being removably attached to the stamp carrier to permit adjustment of the wedge.

Surrounding the center piece for the printing stamp or die is an adjustable die-supporting ring made up of a revoluble annular plate 37 carrying a dial 38 on its upper surface, and having an outer casing 39 applied thereto for supporting an appropriate annular printing die 40 surrounding the center die 30 and arranged to coöperate therewith, the outer adjustable die having numerals or other appropriate characters thereon adapted to coöperate with the center die at different points in the adjustment of the ring. The annular plate is fitted to revolve on the center piece 29 as a journal, and in order to produce sufficient resistance to the movement of the adjustable ring for the purpose of preventing its turning while printing, I prefer to interpose a spring 41 between this ring and a part of the center piece, and this will cause the outer revoluble ring to press the wear plate 42 against the corresponding part or shoulder of the die carrier with sufficient force so that the friction produced thereby will prevent accidental movement of the ring. A suitable pointer 43 is attached to the carrying arm 26 for indicating on the dial the particular numeral or character on the outer adjustable die which is in coöperative relation with the center die.

In employing the printing device above described for applying a limiting mark to a check or other instrument for the purpose of limiting it as to the amount for which it may be payable in such a way as to render fraudulent alteration practically impossible, it is preferable to employ an outer revoluble die A provided with a series of progressively arranged characters representing different amounts, and a non-revoluble center die B having a suitable indicator which preferably occupies at all times a predetermined relation to a check positioning gage 46 adjustable longitudinally of the base and held in adjusted position by screws 47 so that the impression of the indicator will bear a given relation to the paper or instrument to which it is applied, so that in order to alter the limiting mark it would be necessary to change every number or character in the impression formed by the outer die, for it is obvious that if the impression formed by the center die is shifted around so that it indicates a different amount from what was indicated at the original impression, its altered relation to the paper would be immediately detected. An impression from such a die is shown in Fig. 5, comprising a comparatively heavy ring which is a complete circle, except for an opening equal to the height of each of the consecutively or progressively-arranged characters in the outer die, converging lines pointing toward this opening and having a suitable inscription such as "Not over", arranged between them which leads to the selected character or numeral in the outer die, the impression shown in Fig. 5, for instance, indicating that the check is drawn for an amount of ten dollars, while the limiting mark indicates that the highest amount for which the check can be valued is ten dollars, the mark thus limiting the check so that the stipulated amount therein cannot be changed for a higher one, without detection. In applying the limiting mark to a check or other paper of the same general description, it is advantageous to apply the mark so that the indicator extends parallel to the wording in the body of the paper, and if it occurs that the indicator of the mark on a check presented for payment should extend in any direction other than that described, the inconsistency would cause a careful examination of the instrument before it would be honored.

Of course the impression shown in Fig. 5 has been made with a stamp provided with numerals which serve as limiting characters for commercial papers, but it will be understood that by substitution of an appropriate set of printing dies with characters for the days, months and years, the machine may be used to advantage as a ticket stamp for indicating the time limit beyond which railroad and other tickets would not be good. In connection with a stamp of this character employed for limiting the amounts of checks, or other negotiable instruments, it is desirable in order that the impression made thereby may be easily read to arrange the numerals or other indicating characters on radial lines and when numerals are employed to dispose them in a circular row so that the unit figures of each

will fall in the outermost column. This arrangement not only locates the unit figures in a particular place in respect to the circumference of the stamp but it insures the symmetrical positioning of all the figures so that they are right side up in proper alinement with the coöperating indicating or amount limiting impression part of the stamp, and this is true whether the amount is printed in one, two or three digits. It will, also be observed that the numerals, when positioned as described above extend radially of the stamp, the digits of those numerals composed of two or more of them being arranged side by side so that they may be read in the radial lines of the stamp as it is revolved to bring them in the horizontal position. The adjustable indicator also extends radially of the stamp and when the latter is moved into juxtaposition to a particular numeral its inscription, together with the digit, or digits, comprising said numeral may be read in the same line. This coördination of the numerals and the designating mark or indicator is particularly desirable in a printing stamp of this character as it enables the reader to observe at a glance the two important parts of the stamped impression and obviates any turning or unnecessary handling of a check or draft to obtain an observation of the numerals of the limiting amount.

The printing device comprising the present embodiment of my invention is set in operative position by moving the slide to the left against the action of its spring 9, a handle 44 being provided for this purpose. As the slide approaches the limit of its movement toward its set or inking position, the arm 7 thereon will coöperate with the incline 14 on the pivoted support 12, causing the latter to be displaced laterally until the said arm has passed the shoulder 13 thereon, at which time the stop operated by the spring 16, will cause the said shoulder to coöperate with the arm 7 and hold the slide in inking position. The printing die or stamp may then be brought into engagement with the inking pad 4 on the slide by applying sufficient force to the handle 36, and in this way the stamp or dies are supplied with ink. As the stamp carrier operates about the shaft 23 the shoulder 27 of the carrier will bear against the projection 28 on the dog 22, causing the latter to swing back against the action of its spring 25, and as the dog traverses the cam 21 on the releasing member, it will permit the shoulder 20 on the latter to engage the locking shoulder 13 on the stop, and as one end of the spring 16 is connected close to the pivot 15 of the stop while its other end is connected to the releasing member beyond the shoulder 20, it will have a greater leverage on the shoulder of the releasing member than on that of the stop, and thus the spring will cause the shoulder 20 to disengage the locking shoulder 13 from the arm 7, as the dog traverses the cam on the releasing member, but the said arm will be held from movement by its engagement with the shoulder 20 to prevent movement of the slide while the stamp is in contact with the inking pad. However, the return movement of the stamp carrier, which is caused by the action of the spring 25 operating through the dog 22 and the coöperating projections 27 and 28, will cause the dog 22 coöperating with the cam 21 to return the releasing member to normal position, retracting the shoulder 20 from its position in front of the arm 7 on the slide, and as the shoulder on the releasing member is withdrawn from its position in front of this arm, the stop 12 will be held out of coöperative relation with the said arm, for the reason that the shoulder 13 thereon is somewhat beyond the shoulder 20 on the releasing member, and after the arm 7 has moved into engagement with the shoulder 20, the shoulder 13 is beyond the forward edge of the arm 7 and therefore cannot engage it, so that the moment the shoulder 20 clears the arm 7, the slide will move toward the left under action of its spring 9, bringing the platen 5 into printing position opposite to the stamp, and when the stamp is brought down while the check or other paper rests above the platen, it will receive an inked impression.

The herein described invention provides effective means for protecting various kinds of instruments or papers from fraudulent alteration, for by arranging the mark on the instruments so that the indicator is arranged in coöperative relation with a particular character of a series arranged consecutively or progressively and representing amounts of different values, alteration of the mark would necessitate either shifting the indicator or a change of every numeral or character in the outer impression, as all of the characters of the series are printed at each impression, although only one of the amounts is designated in each mark. A task of changing all of the characters of the series would be so difficult as either to discourage an attempt at alteration, or if attempted would probably reveal flaws that would lead to detection, and if the indicator for designating a particular character of the series is arranged in predetermined relation to the check or instrument, alteration of its relation to the instrument would cause an inconsistency that would lead to detection. However, a large measure of protection is afforded by the mark whether or not the indicator bears a predetermined relation to the instrument to which it is applied, and this is true also in regard to the band or ring which rules out or positively excludes

all of the characters of the series, excepting the particular one designated. The particular arrangement of the parts of the printing stamp for producing such an impression renders the adjustable die or type conveniently accessible to the operator in selecting the appropriate character which is to be used as a limiting or distinguishing mark, while the coöperative relation of the center die or stamp and the check guide or gage if the latter is used, provides convenient means for positioning the check or instrument in printing so that the indicator in the impression produced thereon will occupy a predetermined relation to the body of all the checks thus marked.

By providing a slide for the inking pad or platen, or both the inking device and platen as in the present embodiment, adapted to occupy two different positions, that is, inking and printing positions, an ample supply of ink is supplied to the stamp so that the latter will produce clear impressions at each operation, as the use of inking ribbons which tend to obscure and destroy the clearness of the impressions is avoided; and the novel devices for automatically controlling the operation of the slide hold the inking pad in operative position until the stamp has been inked, when, by the operation of the stamp, the slide will be released to bring the platen into printing position, and these operations take place without requiring attention from the operator. Of course, instead of providing both an inking device and platen on the slide, the latter may carry only one of these devices so that it will bring either the inking device or platen into coöperative relation with the stamp, the automatic latch serving to retain the slide in set position until the proper moment when the part on the slide is to perform its function in relation to the stamp, the releasing member preferably controlled by the stamp operating to release the slide.

The peculiar stamp when used for the purpose of applying a limiting mark to checks and similar instruments for indicating the highest amount for which the check may be valued is easily readable and is practically unalterable, for by printing the entire series of characters representing progressively arranged amounts will cause a break in the continuity of the series should one of them be altered without altering all the characters of the series; and by using an appropriate inscription as a part or in connection with the indicator gives an unmistakable meaning to the character designated, as distinguished from the remaining characters of the series that are excluded.

I claim as my invention:

1. In a printing device, the combination with a supporting base and a movable printing stamp, of a slide on the base, an inking pad and a platen thereon, said slide being movable to bring either the platen or pad into coöperative relation with the stamp and means operated by the stamp for controlling the movement of the slide.

2. In a printing device, the combination with a suitable base, a movable slide thereon carrying an inking pad and a platen, of a printing stamp movably supported above the slide having a member movable therewith, means for holding said slide in inking position coöperating with said member to release the slide when the stamp is moved into engagement therewith, and devices for subsequently moving said slide to position the platen thereon in printing position.

3. In a printing device, the combination with a suitable base, of a printing stamp supported on the base, a slide carrying an inking device and a platen adapted to cooperate alternately with said stamp, a latch for holding said slide in one position, and a releasing member for disengaging said latch and permitting said slide to move toward an opposite position.

4. In a printing device, the combination with a suitable base, of a movable printing stamp supported on the base, a slide carrying an inking device and a platen each adapted to coöperate alternately with said stamp, means normally tending to move said slide toward printing position, a latch for holding the slide in inking position, and means controlled by the operation of said stamp, for releasing the said latch.

5. In a printing device, the combination with a base, and a printing stamp supported on the base, of a movable slide having a portion adapted to coöperate with said stamp, of a latch operating automatically when the slide is moved in one direction to hold it in a predetermined position, and a member for releasing said latch to permit said slide to be moved into a different position.

6. In a printing device, the combination with a base, and a printing stamp mounted thereon, of a movable slide on the base having portions adapted to coöperate at different times with said stamp, a projecting arm movable with said slide, a latch having an inclined portion arranged in the path of said arm for permitting the latter to pass the latch when moving in one direction and a shoulder for preventing motion of said arm in a reverse direction, and a releasing member having a shoulder arranged to disengage said shoulder on the latch from said arm, and to engage the latter to retain the slide, retraction of the releasing member serving to disengage its shoulder from the coöperating arm on the slide.

7. In a printing device, the combination with a base, and a printing stamp adapted to coöperate therewith, of a movable slide on the base having portions adapted to co-

operate at different times with said stamp, a projecting arm on said slide, a stop having a latch thereon arranged to coöperate with said arm to lock the slide from movement in one direction, a releasing member having a knock-off shoulder arranged to release the said latch from the said arm and to hold the said arm from movement until said releasing member is retracted

8. In a printing device, the combination with a base, and a printing stamp adapted to coöperate therewith, of a movable slide on said base having portions adapted to cooperate at different times with said stamp and provided with a controlling projection, a pivoted stop having a shoulder arranged to coöperate with said projection to prevent movement of said slide in one direction, and a releasing member having a shoulder arranged opposite to the shoulder on said stop, the projection-engaging surfaces of said shoulders being relatively offset in the direction of movement of said projection, and a spring connecting said stop and releasing member and applying its force in such ratio that the shoulder on the releasing member will disengage the shoulder on the stop from the said projection.

9. In a printing device, the combination with a base, and a printing stamp mounted thereon, of a movable platen arranged to coöperate with said stamp, a latch for holding said platen in a predetermined position, a releasing member for operating said latch, and a device controlled by the operation of the printing stamp for operating said releasing member.

10. In a printing device, the combination with a suitable base, and a printing stamp movable thereon, of a movable platen arranged to coöperate with said stamp and arranged to be moved into and out of cooperative relation therewith, a latch for holding said platen in a predetermined position relatively to the stamp, a releasing member for the latch having a cam thereon, and a dog controlled by the operation of the stamp for controlling operation of said member.

11. In a printing device, the combination with a suitable base, and a printing stamp pivoted thereon, of a movable slide having a portion thereof arranged to be moved into and out of coöperative relation with said stamp, a stop for holding said slide in predetermined position relatively to the stamp, a releasing member for said stop, a dog pivoted concentrically with said stamp and arranged to be operated by the movement thereof said dog being arranged to operate the said releasing member, and a spring operating on said dog for returning it and the printing stamp to normal position.

12. A device for protecting checks, drafts and other negotiable instruments, comprising a stamp composed of a center part and a surrounding body, one of said parts being revolubly adjustable relatively to the other, the body being provided with a series of numerals designating different monetary values arranged in a circular row and disposed upright to be read in a horizontal line extending radially of the stamp, the numeral indicating the lowest amount being one of the digits, the other numerals indicating amounts in tens and hundreds being arranged with their unit digits in circular alinement, and printing surfaces extending transversely on the center part of the stamp including a limiting inscription adapted to be located in alinement with one or another of the numerals.

13. A stamp for printing limiting amounts upon negotiable instruments comprising a series of printing characters designating various amounts of value for which an instrument may be made out arranged consecutively in an annular row, and an adjustable center piece arranged within said row having a printing surface located at the inner side of the row and serving to exclude all but one of the several characters comprising said row and also provided with other printing surfaces extending transversely of the center piece and adapted to indicate the selection of the non-excluded character.

14. In a printing stamp, the combination with a die carrier having a shoulder and a center die projecting beyond the latter, of a revoluble type ring surrounding the center die having a bearing portion adapted to engage said shoulder and a spring interposed between the type ring and die for yieldingly holding the former in engagement with the shoulder.

15. A device for protecting checks, drafts or other negotiable instruments comprising a stamp for printing upon such instrument characters limiting the amount for which it is payable, embodying a stamp body having a circular opening surrounded by numerals arranged concentric thereto and in progressive order, the numeral indicating the lowest amount being one of the digits and the numerals indicating larger amounts being multiples of five, and a center piece adjustably arranged within the stamp body and provided with printing surfaces which bound the inner edges of the numerals with the exception of the space occupied by a single numeral, said surfaces indicating the selection of one of the numerals by the exclusion of the remainder.

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