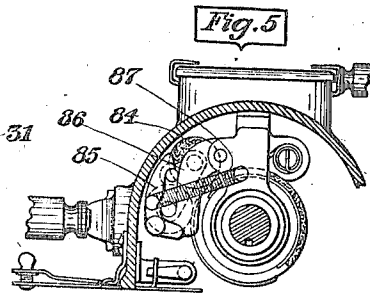
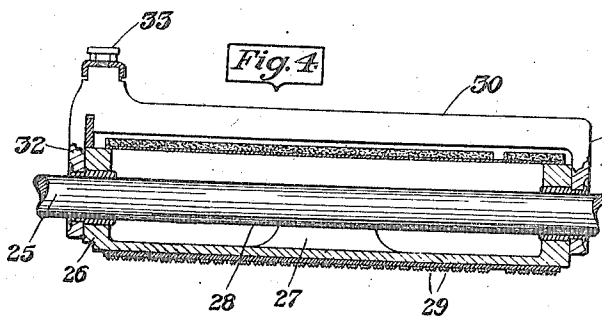
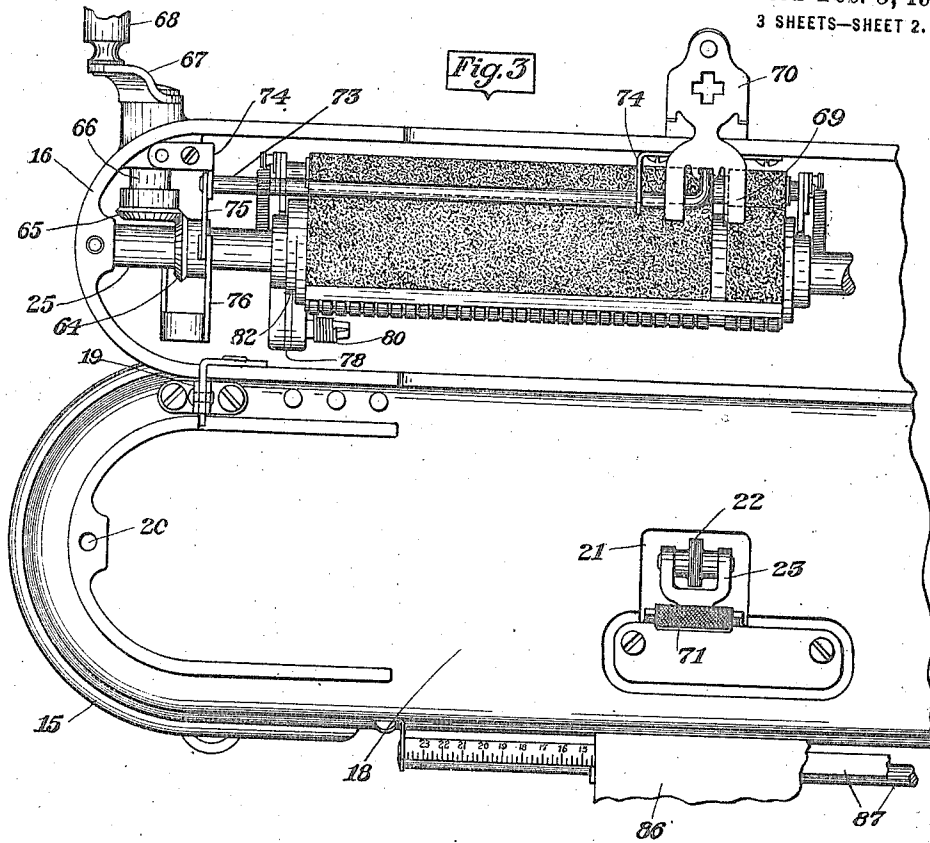


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CHECK WRITER.

APPLICATION FILED SEPT. 22, 1915. RENEWED JUNE 27, 1917.

1,255,247.

Patented Feb. 5, 1918.
3 SHEETS—SHEET 2.



WITNESSES:
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Charles G. Trifel.

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HIS ATTORNEY.

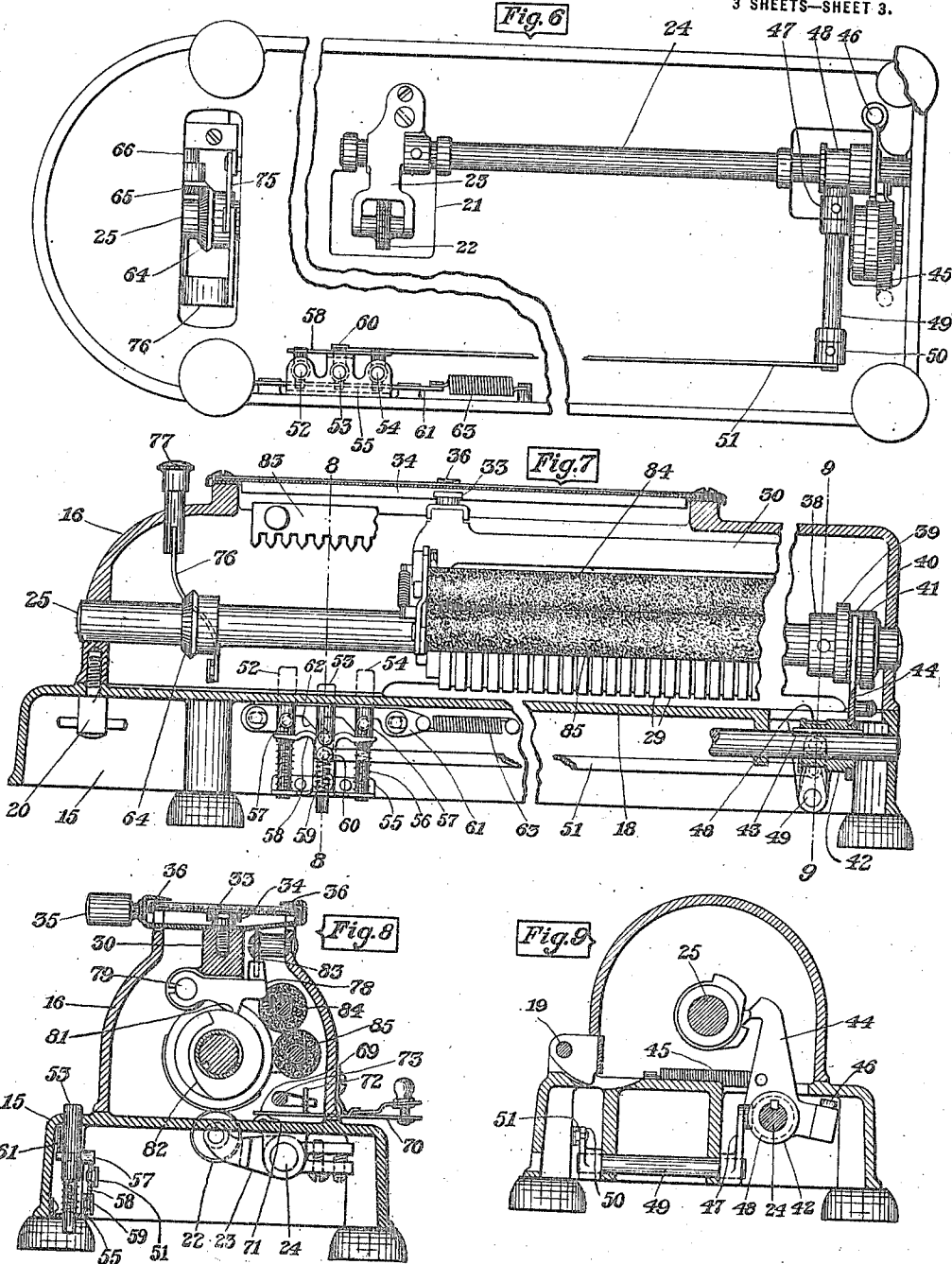
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UNITED STATES PATENT OFFICE.

LIBANUS M. TODD, OF ROCHESTER, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS,
TO TODD PROTECTOGRAPH COMPANY, OF ROCHESTER, NEW YORK, A CORPORATION
OF NEW YORK.

CHECK-WRITER.

1,255,247.

Specification of Letters Patent.

Patented Feb. 5, 1918.

Application filed September 22, 1915, Serial No. 51,976. Renewed June 27, 1917. Serial No. 177,404.

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
5 new and useful Improvements in Check-Writers; and I do hereby declare the following to be a full, clear, and exact description of the same, such as will enable any person skilled in the art to which the invention ap-
10 pertains to make and use the same.

The present invention relates to printing machines, and more particularly to the kind commonly known as "check protectors" or "check writers," which are adapted for print-
15 ing an inscription on a check in an indelible manner so as to protect the instrument against alteration. One object of the invention is to provide a simple and convenient machine of this class having a great variety
20 of printing characters affording capacity for printing on the check by an indelible form of impression any inscription which it may be desired to write.

Other objects and advantages of the invention will appear from the following description of one embodiment of the invention illustrated in the accompanying drawings, in which:—

Figure 1 is a top plan view of the machine
30 partly broken away.

Fig. 2 is an elevation of the work receiving side of the machine.

Fig. 3 is a top plan view of a portion of the machine with the upper part of the casing swung open to expose interior parts.

Fig. 4 is a detail view, partly in section, of the type carrier and its yoke.

Fig. 5 is a detail sectional elevation showing the type cylinder, yoke, and inking rolls.

Fig. 6 is a bottom plan view of the machine
40 partly broken away.

Fig. 7 is a longitudinal sectional elevation of the machine partly broken away, showing the platen controlling device.

Fig. 8 is a lateral sectional elevation of the machine on the line 8—8 of Fig. 7.

Fig. 9 is a lateral sectional elevation on the line 9—9 of Fig. 7.

Fig. 10 is a projected view of a portion of the plate carrying the type forms.

Fig. 11 is an enlarged detailed view of a portion of the device for controlling the platen.

The present invention is embodied in con-

nection with a machine of the general type
55 disclosed in Letters Patent of the United States, No. 1,138,330 granted jointly to L. M. Todd and C. G. Tiefel, May 4, 1915, for an improvement in check writers, and in the
60 copending joint application of L. M. Todd, C. G. Tiefel and A. C. La May, Serial No. 40,657, filed July 19, 1915, for an improvement in check writers. For the convenience of the present disclosure this machine will be
65 briefly described.

The machine comprises a supporting and inclosing casing having a lower, or base portion 15, and an upper portion, or housing 16, these parts being separated throughout a portion of their length by a work receiving slot 17 having a printing bed 18 on the top of the base portion of the casing. These parts of the casing are normally in the position shown in Figs. 1 and 2, but the upper portion is adapted to be swung open, as
75 illustrated in Fig. 3, for the purpose of affording access to the interior parts, by means of a hinged connection 19 uniting the parts, and the latter are securely fixed together, in operating position, by any convenient means,
80 such, for instance, as the screw 20. (Fig. 7).

The printing bed has an opening 21 above a small platen wheel 22 rotatably carried by a yoke 23 which is adjustably fixed to a shaft 24 extending longitudinally of the base portion of the casing and journaled in lugs depending from the printing bed. The platen is adapted to be raised by a rocking motion of the shaft 24 for contact with type forms on a carrier supported in the upper portion
90 of the casing, which will now be described.

Journaled at its ends in the end walls of the upper portion of the casing is a shaft 25 upon which is mounted for sliding movement longitudinally thereof, a type carrier 26 in
95 the form of a portion of a cylinder, but the type carrier is adapted to be rotated by the rotation of the shaft 25 through a key 27 (Fig. 4) engaging in a keyway 28 in the shaft. Spaced longitudinally of the carrier
100 and extending circumferentially thereof, are a plurality of type forms 29 adapted to be brought by sliding movement of the type carrier into position to cooperate, selectively and individually, by rolling contact, with
105 the platen wheel 22 when the type carrier is revolved. The surfaces of the type forms and platen are provided with fine corrugations

adapted to intermesh during the printing engagement of these surfaces for the purpose of shredding the paper simultaneously with the printing operation, as described in U. S. Letters Patent No. 1138330 referred to above.

The means for sliding the type carrier longitudinally of its shaft comprises a yoke 30, (Fig. 4) having ends 31 and 32 journaled on the shaft 25 and closely embracing the ends of the type carrier for the purpose of shifting the latter, but the yoke is held against rotation during the rotation of the shaft 25 by means of a small roller 33 mounted on the top of the yoke and engaging depending guide flanges 34 (Fig. 8) extending longitudinally of and fixed to the upper portion of the casing. The means for shifting the yoke longitudinally of its shaft comprises a handle 35 fixed to the yoke by means of a plate which extends through the top of the casing on either side, and has its ends turned over to form pointers 36 adapted to be moved up and down a dial, or index, 37, supported on the top of the casing. By means of the handle 35 the pointers, which are in alinement laterally of the dial, may be moved up and down the latter and into lateral registry with any one of a plurality of characters arranged in columns on the dial and corresponding to type forms on the type carrier 26. By this means the type carrier is moved, selectively, to bring any desired type form into position to cooperate with the platen during the revolution of the type carrier.

It will be understood that for each column of characters on the dial 37 there is a corresponding column containing the same type characters on the carrier 26, as illustrated in Fig. 10. The platen 22 is normally below the printing bed and is raised through the opening 21 for effecting an impression from the selected type form as the latter rolls past during the rotation of the carrier. Since the type forms are arranged in columns extending longitudinally of the carrier with the corresponding forms of the different columns in alinement circumferentially of the carrier, means must be provided for selectively timing the raising of the platen, so that if the carrier has been moved longitudinally to bring the circumferential row of type forms which contains the selected character to position opposite the platen, the latter may be moved into exclusive contact with the selected type form while the latter is passing over the platen. In this way, only the selected type form of a circumferential row is printed, the platen being in inoperative position while the other type forms in that row are rotating past it.

These means for controlling the time of operation of the platen comprise a sleeve 38 (Fig. 7) fixed at one end to the shaft 25, and carrying three cams, 39, 40 and 41 cor-

responding, respectively, to the three columns of type forms on the carrier in order from left to right, as shown in Fig. 10. The shaft 24 carries a sleeve 42 splined at 43 to the shaft so as to be slidable longitudinally of the shaft but fixed against rotation relatively thereto, and this sleeve carries an upwardly projecting arm 44 (Figs. 7 and 9) formed at its upper end for contact with the surfaces of the cams 39, 40 and 41. This arm is urged toward the cams by means of a spring 45 fixed to the arm and to the printing bed, but the movement of the arm in this direction is limited by means of a stop 46 fixed on the arm in position to contact with the bottom of the printing bed, so as to allow the arm 44 to contact with the high portions only of the cams and thus prevent undue friction of the parts. The contact of stop 46 with the printing bed holds the top of the platen normally even with the top of the bed, but as the shaft 25 rotates, and one of the cams contacts with the arm 44, the latter is oscillated and the shaft 24 is rocked, thereby raising the platen into contact with some of the type forms on the carrier. By the sliding movement of the sleeve 42, arm 44 is adapted to be shifted longitudinally of the shaft 25 to bring it, selectively, into position to cooperate with one of the cams 39, 40 or 41.

The means for shifting sleeve 42 comprises an arm 47 formed at its upper end to engage in an annular recess 48 in the sleeve, the arms being fixed at one end of a short shaft 49 journaled in lugs depending from the printing bed. The other end of the shaft 49 has fixed thereto an arm 50 to which is pivotally attached a rod 51 extending longitudinally toward the other end of the machine where it is connected to manipulative devices which will now be described.

The manipulative means for connecting the platen operating device, selectively, with the cams 39, 40 and 41, and thus controlling the operation of the platen to bring it, selectively and exclusively, into cooperation with the different columns of characters on the type carrier, comprises a plurality of keys 52, 53 and 54 (Figs. 7 and 8) supported for vertical sliding movement in the base portion of the casing and in a bracket 55 fixed to the side wall of the casing. Each of these keys is urged upwardly, so as to project above the printing bed, by means of a spring 56 bearing at one end against a bracket 55, and at the other against a shoulder on the key. Each key is provided with a pin 57 extending from either side thereof and adapted to contact with a curved cross bar of a T-shaped member 58. (Fig. 7) which is pivoted at 59 to the bracket 55. The rod 51 is pivoted at 60 to the T-shaped member 58, and it will be apparent from

the shape of the curved cross bar of this member that when the key 53 is depressed its pin 57 will bring the member 58 to a central position so that the cross bar is substantially horizontal, and by means of the rod 51 and connected devices, the arm 44 will be brought opposite the central cam 40. It will be apparent, however, that when either of the keys 52 or 54 is depressed, the corresponding end of the cross bar of member 58 will be lowered, rocking the member about its pivot, and through the rod 51, sliding the arm 44 into position to cooperate with cams 39 or 41 corresponding with keys 52 and 54 respectively.

Means is provided for retaining any one of the keys in lowered position and for releasing such key when another one is depressed, comprising a plate 61 supported on the side wall of the base portion of the casing so as to have a small longitudinal sliding movement. This plate is provided on its lower edge with a plurality of oblique hooks or teeth 62 adapted for cooperation with the pins 57 on the keys. Plate 61 is urged toward the right in Fig. 7 by means of spring 63 attached to the plate and to the casing, and the relative position of the plate and keys is such that when one of the keys is depressed its pin 57 engaging the corresponding tooth 62 of the plate slides the latter toward the left against the tension of the spring. When the key is fully depressed, the plate slides toward the right, and the lower edge of the hook, engaging over the pin of the key, retains it in lowered position against the tension of its spring 56, thus holding the arm 44 fixed in position to cooperate with the selected cam. If another key be now depressed, the plate 61 will be moved toward the left, releasing the key previously depressed, which is returned to its upper position by its spring, and when the new key is fully depressed the plate will move toward the right, locking it in turn in operative position. Thus any one of the keys 52, 53 and 54 may be depressed at any time to connect the platen operating devices with cams 39, 40 and 41 respectively, to bring the platen into cooperation, selectively and exclusively, with the columns of characters on the type carrier from left to right respectively, as seen in Fig. 10.

The means for rotating shaft 25 comprises a gear 64 (Fig. 3) fixed to said shaft and meshing with a gear 65 fixed to a short shaft 66 journaled in the upper portion of the casing and extending exteriorly thereof, where it has fixed thereto a crank 67 carrying an operating handle 68. Each revolution of the crank produces one rotation of the type carrier and completes a printing operation.

Means are provided for holding the work against inadvertent movement on the print-

ing bed and for guiding it in its passage through the machine, comprising a pair of resilient fingers 69 (Figs. 3 and 8) projecting over the printing bed from a plate 70 supported on the upper portion of the casing, and the fingers 69 bear upon a roller 71 journaled on the printing bed, the paper being yieldably held between these fingers and the roller. In order to raise the fingers to permit the insertion or withdrawal of the paper, the plate 70 is provided with a leaf 72 with which engages the hooked end of a spindle 73, journaled in brackets 74 on the casing and having fixed at its other end an arm 75, to which is pivoted an irregular member 76. The latter member extends around the shaft 25 and to the top of the casing, where it is provided with a plunger 77 extending through the latter and serving as a manual means by the depression of which the fingers 69 may be raised from the roller 71. The resilience of these fingers serves normally to hold the plunger, or fingerpiece, 77, in raised position.

As the type characters and platen are provided with cooperating serrations adapted to be brought into mesh during the printing operation, means are provided for insuring the proper registry of these serrations comprising a dog 78, (Fig. 8) pivoted to a lug 79 of the type carrier yoke and normally held in lowered position by means of a spring 80, (Fig. 3). In this position a lug 81 on the lower edge of the dog contacts with a cam surface 82 on the type carrier, which surface is provided with a high portion adapted during the period of contact of the type and platen to raise the dog 78 so that its beveled upper edge engages the pivoted teeth of a rack, or comb, 83, fixed to the casing, and thereby centers and locks the type in printing position.

The means for inking the type forms comprises a pair of inking rollers 84 and 85 journaled at their ends in bearings carried by arms 86 (Fig. 5) pivotally supported at either end of the yoke 30. Springs 87 urge these rollers into the path of rotation of the type forms so that they roll over the surface of the latter during the rotation of the type carrier previous to the impression of the type on the paper.

The operation of the machine will now be understood from a brief description. If it is desired to print an amount key 52 is depressed. If, however, it be desired to print a name, using the alphabet column of type, key 53 is depressed, and if it be desired to print a date, key 54 is depressed. The check having been placed on the printing bed with its left end between the type and platen, the carrier is moved longitudinally of the machine by means of the handle 35 to bring the pointers 36 into lateral alinement with the particular type form desired to be printed.

The operating handle 68 is then given one rotation by which the type carrier is rotated and the platen is raised as the selected type form approaches it, to simultaneously print the character and shred the paper so that the latter absorbs the ink and an indelible impression is made. The next character is then selected and printed in a similar manner until the inscription is complete.

10 This invention provides a machine which may be used to print upon a check any desired inscription, whether it be the date, the name of the payee, or the amount for which the instrument is drawn; also, by means of
15 the alphabet, any word may be printed which it is not convenient to provide as an entirety among the type characters. The machine is as simple in construction and operation as the ordinary check writing machine, and yet affords, in a novel and convenient form, the wide range of printing characters and capacity for work found in the typewriter, while providing also the
20 additional feature of impressing each character indelibly on paper.

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

1. In a printing apparatus, a type carrier
30 having a plurality of types arranged in longitudinal and transverse rows, a platen comprising an impression roller adapted for rolling printing contact with each of said types individually, said carrier and platen
35 having a relative movement to select one of said transverse rows of types for coöperation with the platen, and having also a relative printing movement to bring the types of said selected transverse row and the platen
40 into rolling contact, and a plurality of manipulative means for moving said carrier and platen relatively toward and from each other at different times during said relative printing movement thereof, to select any
45 type of said selected transverse row for contact with the platen.

2. In a check protecting machine, the combination with a rotary type carrier having a plurality of types arranged in longitudinal and circumferential rows thereon; and a single impression roller adapted for individual contact with said types, said carrier and platen having a relative movement to select a circumferential row of types,
55 and having also a relative printing movement to bring the platen and the types of said selected row into rolling contact; of a plurality of manipulative means for moving said carrier and platen relatively toward
60 and from each other at different times during said relative printing movement thereof to bring selectively into contact with said

platen any type form of a selected circumferential row.

3. In a printing apparatus, a type carrier having thereon a plurality of type forms arranged in spaced relation and in
65 alinement with each other to form a plurality of groups, a platen common to all of said type forms and movable toward and
70 from said carrier for individual coöperation with said type forms, means for moving said carrier to select one of said groups of type forms for coöperation with the platen, means for moving said carrier to effect
75 printing contact between the type forms and platen, and a plurality of manipulative means for varying the time of movement of the platen relative to said printing movement of the carrier to bring the platen into
80 printing contact with any one of the type forms of said selected group.

4. In a printing apparatus, a type carrier having thereon a plurality of type forms arranged in spaced relation and in alinement
85 with each other to form a plurality of groups, an impression roller adapted for rolling printing contact individually with each of said type forms, and movable into and out of position for coöperation with
90 said type forms, means for moving said carrier to select one of said groups of type forms for coöperation with the platen, means for moving said carrier to effect said rolling printing contact between the type forms and
95 platen, and manipulative means including a plurality of keys for varying the time of movement of the platen relative to said printing movement of the carrier to bring the platen into printing contact with any
100 one of the type forms of said selected group.

5. In a printing apparatus, a rotary type carrier having a plurality of type forms arranged in a plurality of rows, an impression
105 roller adapted for individual rolling printing contact with each of said type forms, said carrier and platen having a relative movement to select one of said rows for coöperation with the platen, means for rotating
110 said carrier to bring the type forms of said selected row into rolling contact with the platen, and a plurality of manipulative means for moving said carrier and platen relative toward and from each other at different
115 times during the rotation of the carrier for selecting any one of the type forms of said selected row for contact with the platen.

LIBANUS M. TODD.

Witnesses:

CHARLES G. TIEFEL,
MAGNUS H. JOHANSON.