

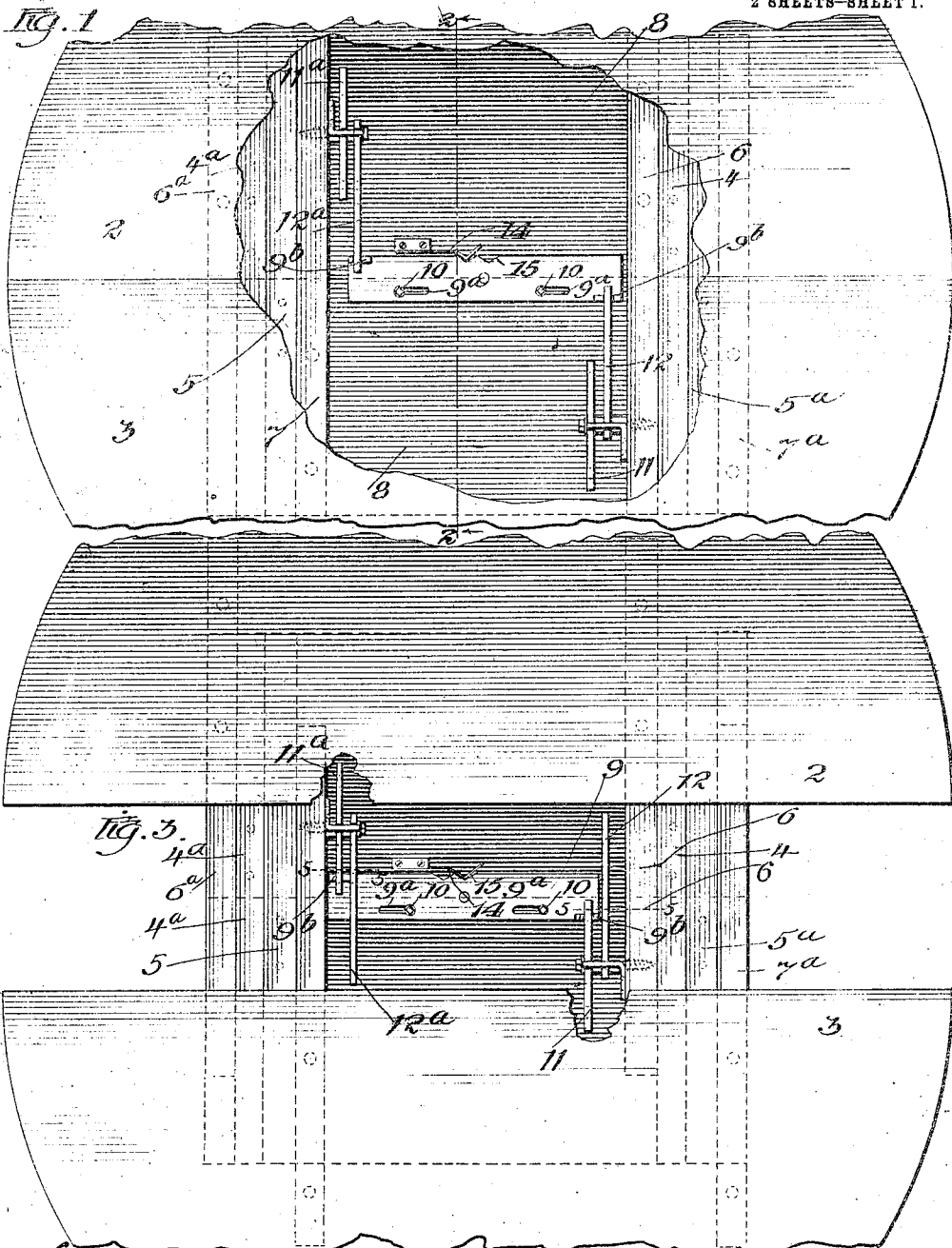
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EXTENSION TABLE.

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Patented Jan. 10, 1911.

981,143.

2 SHEETS-SHEET 1.



Witnesses:

Frank S. Blanchard  
J. S. Abbott

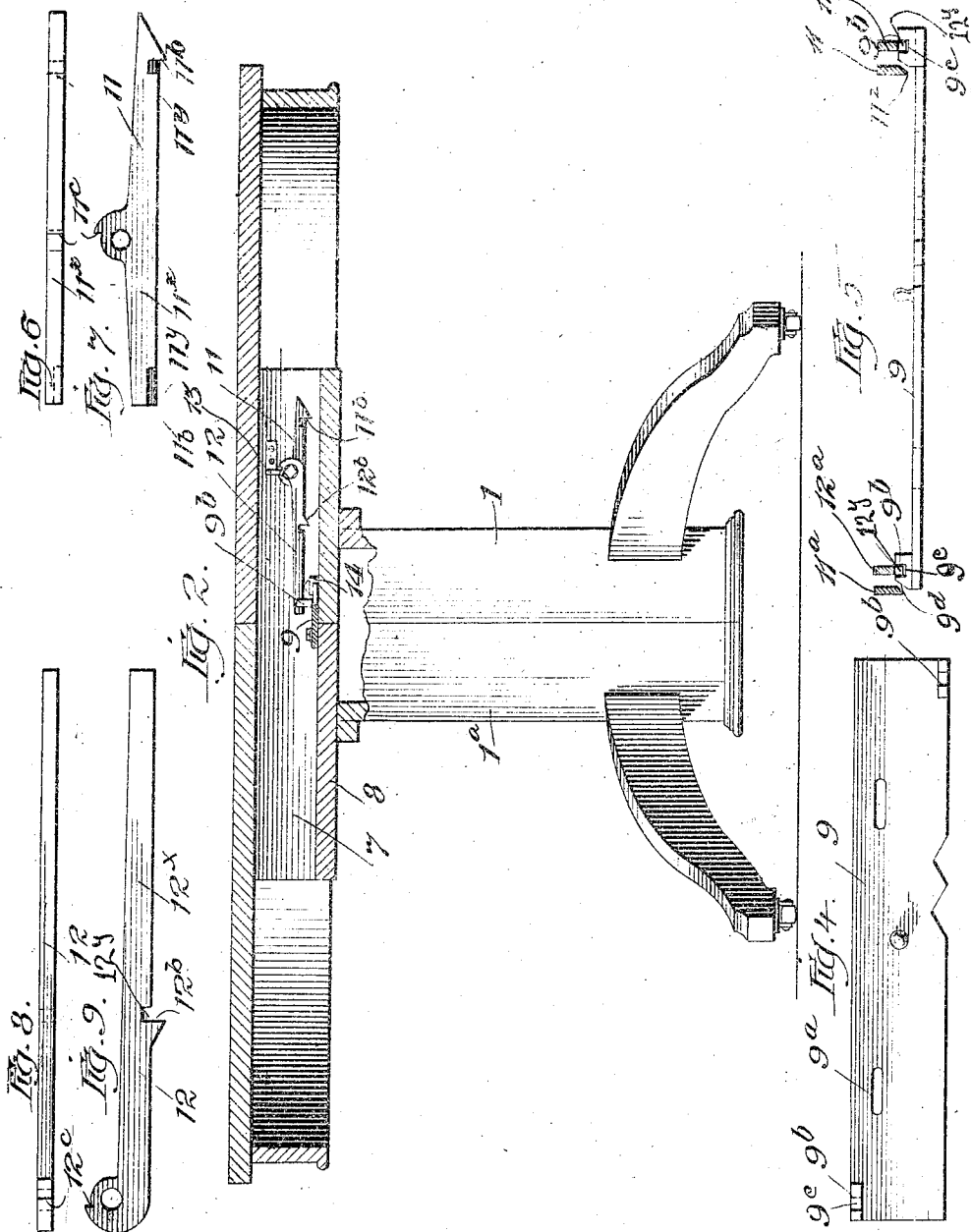
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# UNITED STATES PATENT OFFICE.

EMIL TYDEN, OF HASTINGS, MICHIGAN.

## EXTENSION-TABLE.

981,143.

Specification of Letters Patent.

Patented Jan. 10, 1911.

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*To all whom it may concern:*

Be it known that I, EMIL TYDEN, a citizen of the United States, residing at Hastings, in the county of Barry and State of Michigan, have invented new and useful Improvements in Extension-Tables, of which the following is a specification, reference being had to the drawings forming a part thereof.

The purpose of this invention is to provide an improved means for controlling the extension of a table of the type in which the top is extensible independently of the extension of the pedestal, in such manner as to prevent unequal extension when fillers interposed occupy the space between the separated table members.

It consists of the features of construction shown and described as indicated in the claims.

In the drawings:—Figure 1 is a top plan of a table equipped with this invention having the top members partly broken away to disclose the operating devices. Fig. 2 is a section at the line 2—2 on Fig. 1. Fig. 3 is a view similar to Fig. 1 showing the table members partly extended for the admission of one filler. Fig. 4 is a detail plan view of the escapement slide. Fig. 5 is a side elevation of the same. Fig. 6 is a top plan view and Fig. 7 is a side elevation of one of the stop dogs. Fig. 8 is a top plan view and Fig. 9 is a side elevation of the other dog.

The drawings represent a table having a pedestal which is extensible, and also having table members extensible on the respective pedestal members. The two pedestal members, 1, 1<sup>a</sup>, are connected by slides, 4 and 5, attached to the respective pedestal members for sliding upon each other in the customary manner. The table top members, 2 and 3, are provided with slides, 6 and 7, attached to them respectively having sliding engagement respectively with the pedestal slides, 4 and 5, of the corresponding pedestal members. This construction, except as to one feature hereinafter pointed out, will be recognized as the customary one for extension of tables of this type, in which the top is extensible independently of the pedestal, and also with the pedestal when the latter is extended.

The specific purpose of the invention, which is to prevent the table top members, when extended for the admission of fillers, one or more, from overhanging the pedestal

unequally at the opposite ends, is effected by the devices and features of construction which will now be described. For the purpose of utilizing the slides in the control of the extension of the table top members for the purpose indicated and utilizing the space between the slides for the devices in question it is desirable to have the two innermost slides pertain and be attached to the two opposite table top members, so that the engagement of these slides shall constitute engagement of said members respectively. This involves a change from the usual construction and arrangement of extension slides, the customary construction being that the two sets of slides are symmetrically disposed and arranged so that the two innermost slides pertain to one table top member and the two outermost slides to the other top member, the pedestal slides next to said table top slides respectively pertaining to the corresponding pedestal members.

In the structure shown, the two innermost slides, 6 and 7, pertain to the opposite table top members, 2 and 3, respectively, the slide, 4, next to the inner slide, 6, pertaining to the pedestal member, 1, on which the table top member, 2, is mounted, and the slide, 5, next to the innermost slide, 7, pertaining to the pedestal member, 1<sup>a</sup>, upon which the top member, 3, is mounted, the slides, 4<sup>a</sup> and 5<sup>a</sup>, being attached to the same pedestal members as the slides, 4 and 5, respectively and the slides, 6<sup>a</sup> and 7<sup>a</sup>, being attached to the same table members as the slides, 6 and 7, respectively. Upon the bridge or pedestal cap 8, pertaining to one pedestal member (it is immaterial which one) there is mounted for sliding, a plate, 9, which is secured and guided in its sliding movement by bolts, 10, 10, engaging in slots, 9<sup>a</sup>, 9<sup>a</sup>, in the plate. At diagonally opposite corners of the plate it is provided with upstanding lips, 9<sup>b</sup>. On the slides 6 and 7 respectively, there are pivoted dogs, 11, and 11<sup>a</sup>, off-set from the slides respectively such distances that at one limit of the sliding movement of the plate 9, the dogs can pass by one end of the lips, 9<sup>b</sup> when the table top members are drawn apart. Other dogs, 12, 12<sup>a</sup>, are also mounted on these slides, most conveniently on the same pivots with the dogs, 11 and 11<sup>a</sup>, respectively, and each spaced from them by an interval substantially equal to its own thickness. All the dogs, 11, 11<sup>a</sup> and 12, 12<sup>a</sup>, have abrupt shoulders or heads facing the

lips, 9<sup>b</sup>, 9<sup>b</sup>, respectively. The heads 12<sup>b</sup> of the dogs, 12, and 12<sup>a</sup>, when the table top members are closed together stand at a distance from the lips, 9<sup>b</sup>, 9<sup>b</sup>, respectively, equal to substantially one-half of a filler width, so that upon the table top members being extended until the heads of said dogs collide with the lips, 9<sup>b</sup>, the interval between the table top members is sufficient to admit one filler, and no further extension of the table top can be made until movement of the plate, 9, (to the left in Fig. 1), removes the lips 9<sup>b</sup> from the paths of the shoulders 12<sup>b</sup> of the dogs so that the dogs can pass across the plate 9; and such movement of one only of them resulting from extending only one table top member another half filler width, cannot exceed that amount, because the shoulders 11<sup>b</sup> of the dogs 11 and 11<sup>a</sup> distant from the shoulders 12<sup>b</sup> of the dogs 12 and 12<sup>a</sup> by a half filler width, will collide with the lip 9<sup>b</sup> which in moving out of the paths of the shoulders 12<sup>b</sup> moves into the paths of the shoulders 11<sup>b</sup>. It is therefore necessary in order to get space for the second filler to move both top members as last indicated so that the dogs carried by both stand in the same relation to the respective lips 9<sup>b</sup> on the plate 9. The plate, 9, being now thrust in the opposite direction to the opposite limit of its sliding movement, the path of the shoulders 11<sup>b</sup> of the second dogs, 11 and 11<sup>a</sup>, is cleared, and the slides to which they are respectively attached, and the table top members carried thereby, may be moved for extension another half filler width each. By such alternation of action, each table top member being moved a half filler width from central position, and that to admit first one filler and next two fillers, the table top is kept in balanced relation to the pedestal. The slides are usually constructed—and may be so understood in this case—for extension only to the extent of three fillers, and after extension for the two fillers is made, unequal extension for the third filler is obviously impossible, and no precaution is necessary in respect thereto except the customary limitation of the slides.

When greater extension is desired than that which can be obtained by extending the table top members upon the pedestal members in the manner above described, the extension of the table top members will be first made to the limit of three fillers, and the pedestal will then be extended in the usual manner. In the latter extension it will be observed that the devices above described simply move away from the bridge 8, without any obstruction, and that in closing up the pedestal they will merely approach it without obstruction, so that the devices described do not interfere in any manner with the extension of the pedestal. It will also be observed that the dogs, 11, 11<sup>a</sup> and 12, 12<sup>a</sup>,

having sloping noses on the side opposite their abrupt shoulders which encounter the lips, 9<sup>b</sup>. Since the positioning spring, 14, engaging the scallops, 15, in the edge of the plate, 9, automatically keeps said plate in one of the two positions shown in Figs. 1 and 3 respectively, the table top members may be closed together without regard to the position of the plate, 9, and without reversing the alternating reciprocating movement which is necessary in order to control the extension; and this is the sole purpose of employing pivoted dogs instead of fixed abutments, which, so far as controlling the extension is concerned, would be equally effective.

Any form of lock may be employed for locking the table members together, either in the absence of fillers, or with one or more fillers, and the devices above shown do not interfere with the employment of such locking devices.

Upon consideration, it will be seen that as thus far described, while the devices shown would tend to insure the alternate extension of the opposite table top members one-half filler width at a time, and tend, therefore, to prevent the insertion of one or more leaves otherwise than with their width equally distributed at opposite sides of the original meeting line of the table-top members, it would be possible to extend only one member a half filler width at a step following each extending movement by a proper movement of the plate, 9, to clear the path of the dog so as to permit the next step without moving the other top member in the interval or alternately with the first member. To render this mode of manipulation of the device impossible, the dogs and plate, 9, are constructed with other features which will now be described.

Each of the dogs, 12 and 12<sup>a</sup>, is provided with an extension 12<sup>x</sup>, projecting beyond its abrupt shoulder, 12<sup>b</sup>, a little more than one filler width, and the lips 9<sup>b</sup>, have each a notch, 9<sup>c</sup>, in which said extension, 12<sup>x</sup>, is engaged when the table top members are closed together. This prevents the movement of the plate, 9, until both table-top members have been moved away from their meeting position one filler-width to bring a notch, 12<sup>x</sup>, which is formed in the extension, 12<sup>x</sup>, immediately in front of the head, 12<sup>b</sup>, to the lip; that is, so that such notches 12<sup>x</sup> of both dogs 12 register with the corresponding notches 9<sup>c</sup> of the plate 9. The plate can then be moved longitudinally, as already described, for clearing the abrupt head, 12<sup>b</sup>, of the dog. This renders impossible two consecutive step movements of one table-top member away from the closed position without an intervening step movement of the other member. To prevent two successive movements of either member thereafter without

an intervening movement of the opposite member, each of the dogs, 11 and 11<sup>a</sup>, is provided with an extension, 11<sup>x</sup>, projecting forward from the fulcrum of the dog a little more than one-half filler width, so that when the dogs, 12, 12<sup>a</sup>, are moved by the first step of separation of the table-top members to bring their heads respectively up against the lips, 9<sup>b</sup>, the ends of said extensions, 11<sup>x</sup>, project past the edges of the lips, 9<sup>b</sup>, respectively. The lateral edges of these projections, 11<sup>x</sup>, are beveled, as seen at 11<sup>z</sup>, and the facing edges or corners, 9<sup>d</sup>, of the lips, 9<sup>b</sup>, are similarly beveled, so that the longitudinal movement of the plate 9, as permitted by the registration of the notches, 12<sup>y</sup> and 9<sup>c</sup>, will cause the lip, 9<sup>b</sup>, at each end of the plate, which is advanced in such movement to collide by its said beveled corner with the beveled edge of the extension, 11<sup>x</sup>, causing said extension to rise up over the said beveled corner of the lip and drop into the notch, 9<sup>c</sup>, and lock the plate against movement in the opposite direction. The plate will be released from this engagement and become movable in the opposite direction after each of the dogs thus engaged has been moved in the direction in which it will be carried by the extension of the table-top member to which it pertains a distance equal to one-half filler-width; that is, the distance necessary to bring the head 11<sup>b</sup> of each dog up to the lip where the dog is provided with a notch, 11<sup>z</sup>, through which the lip, 9<sup>b</sup>, can pass in the reverse movement of the plate.

With this construction, although it will be possible for the operator deliberately to release the dogs at the points at which they would normally prevent the second successive extension movement of either table-top member,—that is, without the intervening movement of the opposite member,—such successive movements will not be possible and therefore will not occur inadvertently or without the deliberate intention of the operator.

Any convenient means may be provided for preventing the latches from dropping too low for action as above described, as the stop shoulders, 11<sup>e</sup> and 12<sup>e</sup>, above the fulcrums of the levers in position to stop at opposite sides of the stop brackets, 13, mounted on the sides of the slides, 6 and 7, respectively.

I claim:—

1. In an extension table comprising a supporting member and top members movable with respect thereto for extension to admit fillers; two stop devices carried by each top member longitudinally distant from each other one half filler width for limiting the extension of the table top members respectively relatively to the supporting member at half filler width steps from middle position, and a transversely reciproca-

ble device mounted on the supporting member having stops for encounter of the stop devices on the two top members respectively, positioned for such encounter with one stop device on each top member at one limit of the range of reciprocation of said device, and for encounter with the other stop devices of both top members at the other limit of such reciprocation.

2. In an extension table comprising a supporting member and two top members movable apart thereon for admitting fillers, in combination with such supporting member and top members, a transversely reciprocable stop-carrying plate mounted on the supporting member, and two stop devices carried by each top member having their stop shoulders separated longitudinally of the table one half filler width and positioned on their respective top members for encounter of the first of said stop shoulders with the corresponding stop on the plate when the top members respectively are extended one half filler width, the stops on said plate being notched and the stop devices having extensions beyond their stop shoulders for engagement in said notches, said extensions being notched for the passage of the stops on the plate at position for registering with said stops when the stop shoulders encounter the stops.

3. In an extension table which comprises a supporting member and top members movable apart thereon for admitting fillers between them, in combination with such supporting member and top members, a stop-carrying element mounted on the supporting member and reciprocable transversely of the line of extension of the table; two stop dogs carried by each of the two top members having their stop shoulders distant from each other longitudinally one half filler width, and means also carried by the top members for engaging the stop-carrying element to prevent its reciprocation except when the top members respectively are withdrawn from middle position one or more filler widths distance, the stops on said element being positioned thereon for encounter of proximate dogs on the two top members at one limit of the range of reciprocation of said element and for encounter with the other dog on each top member at the opposite limit of such reciprocation.

4. In an extension table comprising a supporting member and two top members movable apart thereon for admission of fillers, in combination with such supporting member and top members, a stop-carrier mounted on the supporting member and reciprocable transversely thereon, two dogs carried by each top member, and stops on the carrier for encountering said dogs, the two dogs on each member having their

stop-engaging shoulders longitudinally distant from each other one half filler width, and the stops on the carrier being positioned thereon for encounter of one dog upon each top member at one limit of reciprocation of the carrier, and for encounter with the other dog of each top member at the other limit.

5. In an extension table of the character indicated, in combination with the supporting member and the top members separable thereon for admitting fillers, a plate mounted on the supporting member for sliding transversely of the direction of separation of the top members having stops for encounter with stop dogs on the top members respectively; two stop dogs pivotally carried by each of the top members having stop shoulders facing the corresponding stops on the stop plate longitudinally distant from each other one half filler width, and having extensions from their said shoulders in the direction of movement of said top members for extension, and means on the plate engaged by said extensions preventing reciprocation of the plate during such engagement, said extensions and said engaging means being relatively constructed for disengagement upon the encounter of the stop shoulders with the stops respectively.

6. In an extension table of the character indicated, in combination with the supporting member and the top members separable thereon for admitting fillers, a plate mounted on the supporting member for sliding transversely of the direction of separation of the top members having stops for encounter with stop dogs on the top members respectively; two stop dogs pivotally carried by each of the top members having stop shoulders facing the corresponding stops on the stop plate longitudinally distant from each other one half filler width, and having extensions from their said shoulders in the direction of movement of said top members for extension, and means on the plate engaged by said extensions preventing reciprocation of the plate during such engagement, said extensions and said engaging means being notched for the transverse movement of the engaging means on the plate at the position of encounter of the stop shoulders of the dogs with the respective stops.

7. In an extension table of the character indicated, in combination with the supporting member and the separable top members, a stop plate mounted on the supporting member for transverse reciprocation having stops for encounter of the dogs on the top members respectively, and two such

dogs carried by each top member having shoulders for engaging the stops with the plate facing in the direction of extension movement of the top member by which they are respectively carried, the shoulders on the two dogs of each top member being longitudinally separated one half filler width, and the first being distant one half filler width from its stop on the stop plate when the top members are closed together, the stops being positioned on the plate for encounter with the proximate dogs of the two top members at one limit of reciprocation of the plate and for encounter with the two remote dogs at the other limit, and being notched, the dogs having extensions toward the further stop shoulders in the direction of extension one full filler width for engagement with the notches when the members are closed together to prevent reciprocation of the plate at that position, said extensions having notches for the passage of the stops by reciprocation of the plate, positioned for registration therewith when the shoulders encounter the stops respectively, the dogs having the remote shoulders being laterally beveled forward of said shoulders, and the stops being correspondingly beveled for causing said last mentioned dogs to pass laterally into the notches upon the reciprocation of the plate when the proximate dogs encounter said stops.

8. In an extension table comprising a supporting member and two top members, separable thereon to admit fillers, in combination with such supporting member and top members, extension slides for connecting them arranged in two similar groups at opposite sides of the longitudinal center line of the table, proximate slides of the two groups being attached to the opposite table members respectively; cooperating sets of stop devices mounted on said proximate slides and on the supporting member respectively, one of such sets having stops separated one-half filler width in the direction of the table-extending movement, the other having means for encountering such stops, the set of stop devices on the supporting member being mounted for movement alternately in opposite directions into engagement with the stops on the respective slides, one at a time.

In testimony whereof, I have hereunto set my hand at Chicago, Illinois, this 3d day of March, 1909.

EMIL TYDEN.

Witnesses:

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M. GERTRUDE ADY.