

W. McGALL & T. E. MORGAN.

EXTENSION TABLE.

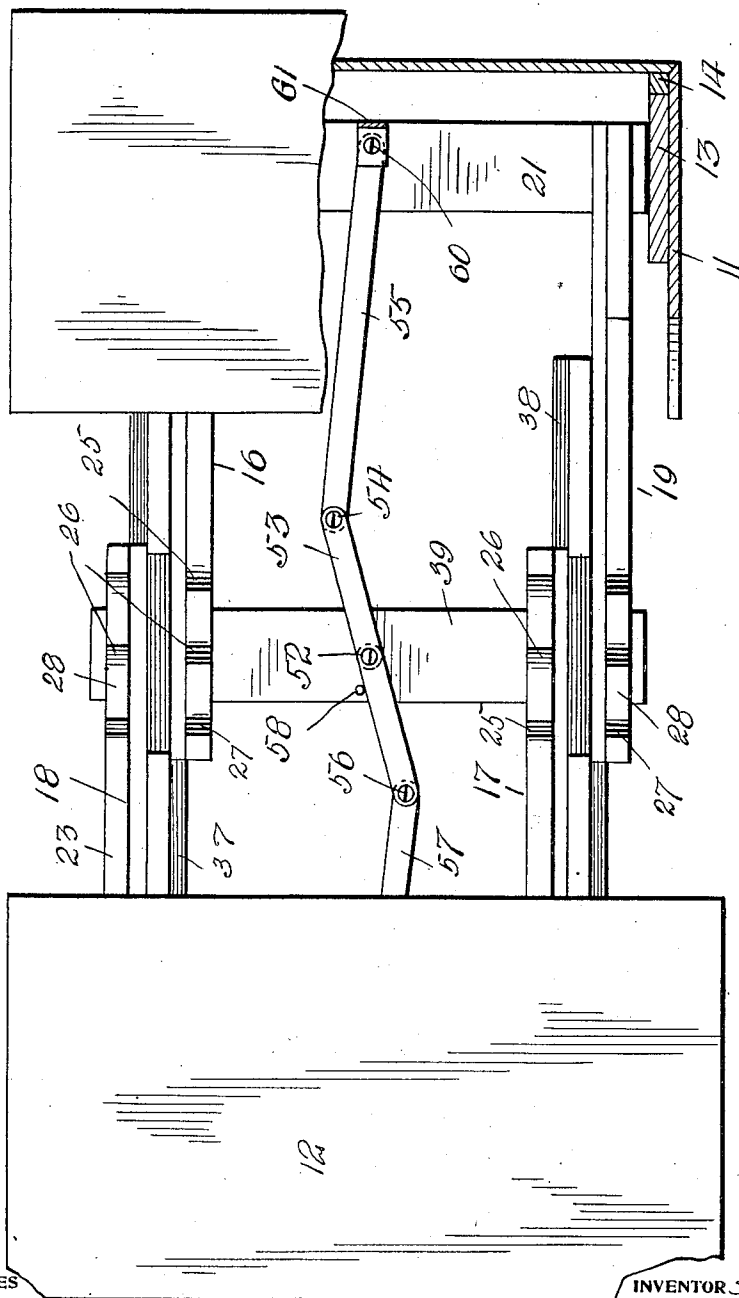
APPLICATION FILED SEPT. 22, 1911.

1,035,214.

Patented Aug. 13, 1912.

3 SHEETS—SHEET 1.

Fig. 1.



WITNESSES

Samuel Payne

Ralph C. Evert

INVENTORS

W. McGall and

T. E. Morgan.

BY

McGall & Morgan

ATTORNEYS

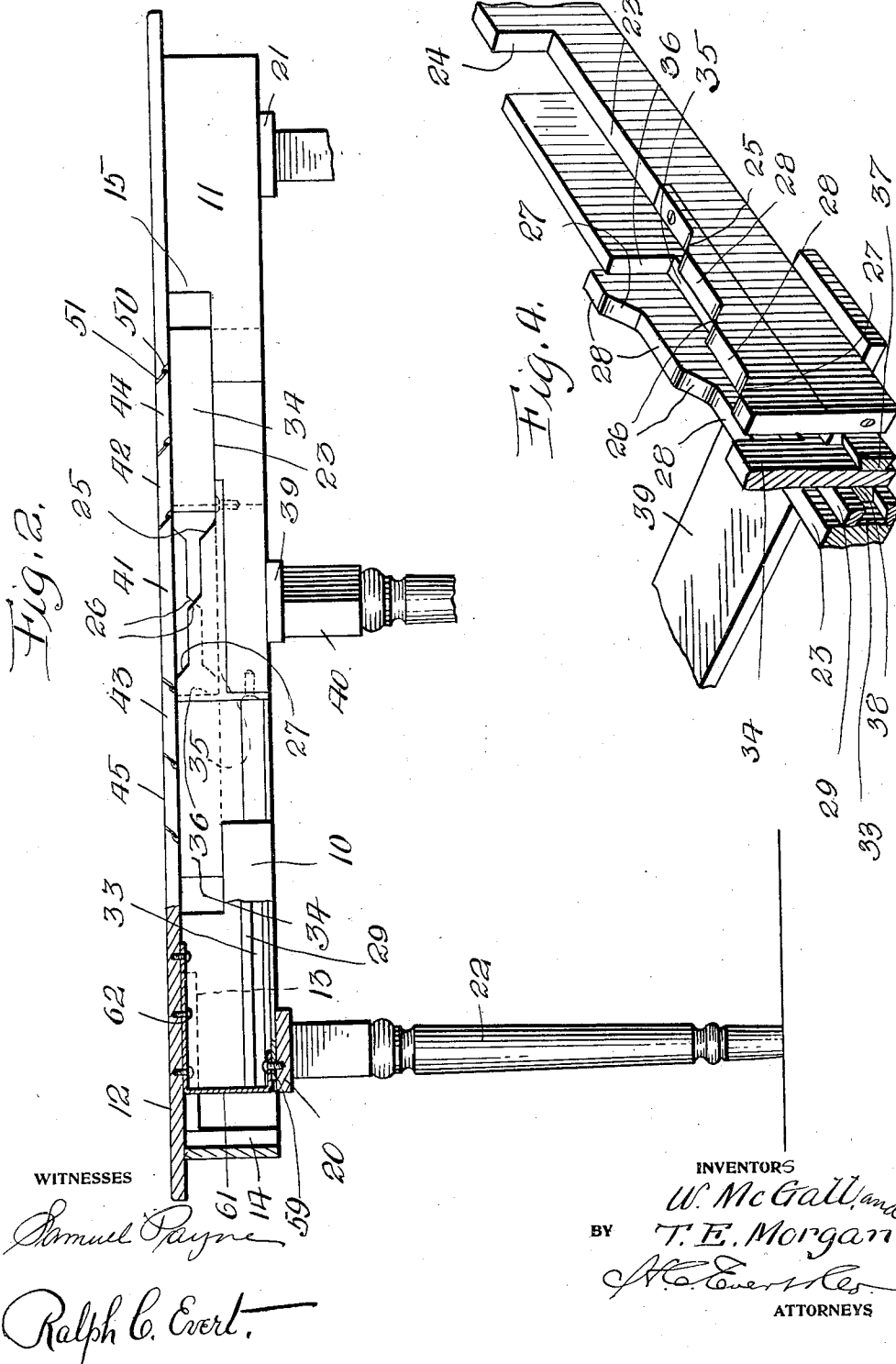
W. McGALL & T. E. MORGAN.
EXTENSION TABLE.

APPLICATION FILED SEPT. 22, 1911.

Patented Aug. 13, 1912.

3 SHEETS-SHEET 2.

1,035,214.



WITNESSES

Samuel Payne
Ralph C. Evert.

INVENTORS
W. McGall and
T. E. Morgan.
BY *A. C. Everette*
ATTORNEYS

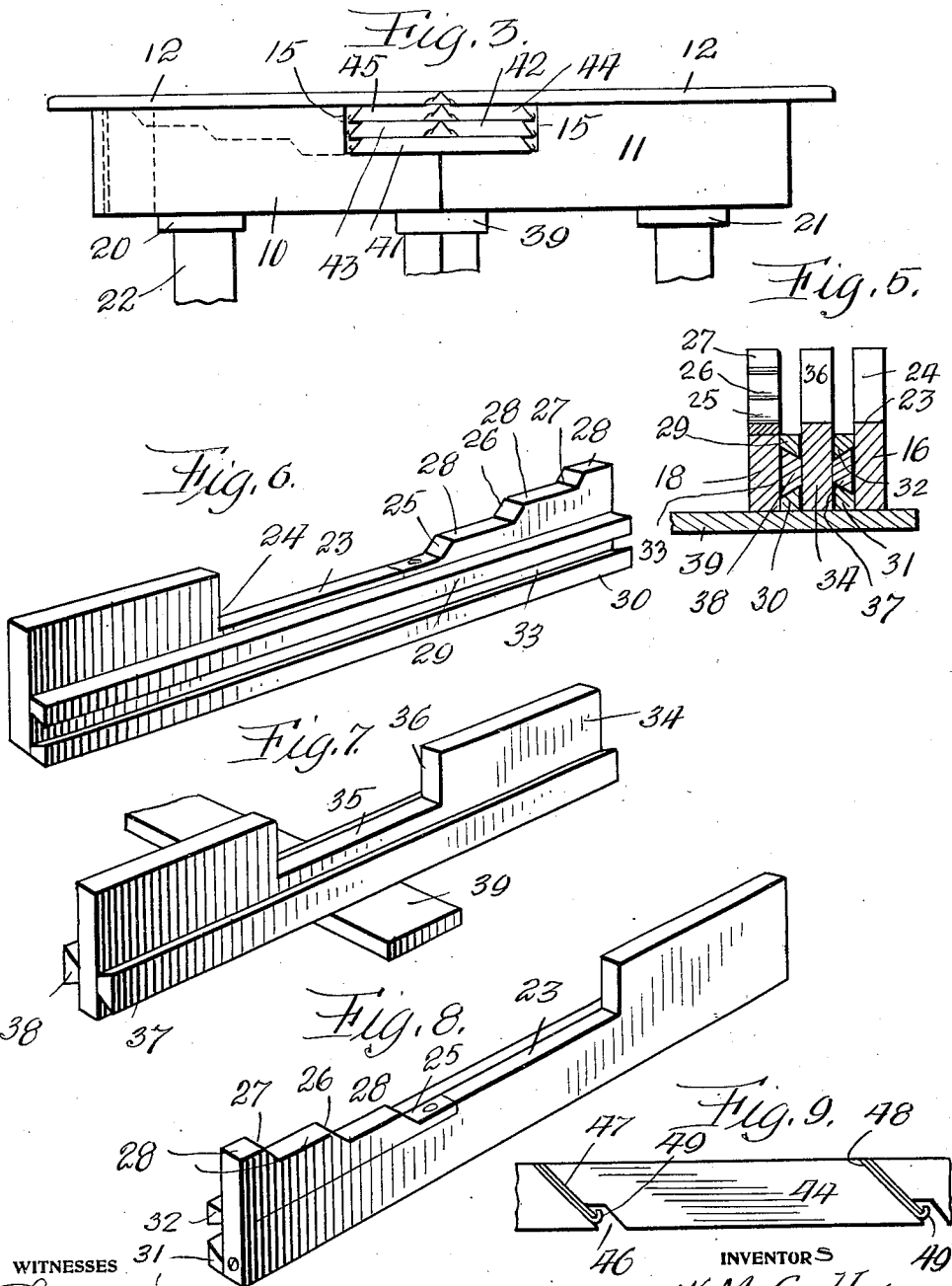
W. McGALL & T. E. MORGAN.
EXTENSION TABLE.

APPLICATION FILED SEPT. 22, 1911.

Patented Aug. 13, 1912.

3 SHEETS—SHEET 3.

1,035,214.



WITNESSES

Samuel Payne

Ralph C. Evert

INVENTORS

*W. McGall and
T. E. Morgan.*

BY

N. C. Everett & Co.
ATTORNEYS

UNITED STATES PATENT OFFICE.

WILLIAM MCGALL AND THOMAS E. MORGAN, OF PITTSBURGH, PENNSYLVANIA.

EXTENSION-TABLE.

1,035,214.

Specification of Letters Patent.

Patented Aug. 13, 1912.

Application filed September 22, 1911. Serial No. 650,763.

To all whom it may concern:

Be it known that we, WILLIAM MCGALL and THOMAS E. MORGAN, citizens of the United States of America, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Extension-Tables, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to extension tables and has for its object to provide a table of such class in a manner as hereinafter set forth, with means for automatically shifting, when the table is pulled open, leaves to a position flush with the table top whereby the length of the table is increased.

Further objects of the invention are to provide an extension table with means, in a manner as hereinafter set forth, for automatically shifting extension leaves to a position to increase the length of the table top when the table is extended and for automatically returning the shifted leaves to a position below the table top when the table is closed.

Further objects of the invention are to provide an extension table which is comparatively simple in its construction and arrangement, strong, durable, efficient in its use, readily set up, conveniently operated to increase and decrease the length of the table, and inexpensive to manufacture.

With the foregoing and other objects in view, the invention consists of the novel construction, combination and arrangement of parts as hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown an embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In the drawings, wherein like reference characters denote corresponding parts throughout the several views—Figure 1 is a plan partly in section of a table in accordance with this invention extended and with the extension leaves removed; Fig. 2 is a side elevation broken away and partly in section of a table in accordance with this invention extended and showing the extension leaves in position; Fig. 3 is a side elevation broken away showing a table in accordance with this invention closed and the extension

leaves nested below the table top; Fig. 4 is a perspective view broken away illustrating a pair of extension bars; Fig. 5 is a cross sectional view of a pair of extension bars and a combined guide and supporting member; Fig. 6 is a perspective view of the inner extension bar; Fig. 7 is a like view of the combined guide and supporting member; Fig. 8 is a perspective view of the outer extension bar; Fig. 9 is an end view broken away showing a plurality of extension leaves in parallel position.

Referring to the drawing by reference characters, the table includes a frame formed of two U-shaped sections 10, 11, each capable of being shifted away and toward each other, and each of which has secured thereon a rectangular plate 12 which are adapted to abut when the sections are shifted toward each other and form in connection with the sections 10 and 11 a table top or when the sections are shifted away from each other and the extension leaves moved to a parallel position with the plates 12, form in connection with the extension leaves a table top. Each of the sections has the side bars thereof provided with longitudinal cleats 13 to which are secured the plates 12, and each of the sections at each corner is furthermore provided with a vertically disposed cleat 14 which is suitably secured in position and constitutes a reinforcing medium for each corner of the frame. The plates 12 are of a width and length as to project from each of the sections 10, 11. Each side bar and each of the sections 10 and 11 is cut away at its upper inner corner to provide, when the sections 10, 11 are closed, a clearance 15 to allow of the ends of the extension leaves to project beyond the frame as clearly shown in Fig. 3.

The table includes two pairs of extension bars, each pair comprising an inner and an outer bar, the inner bars of the pairs are indicated by reference characters 16, 17, and the outer bars of the pairs are indicated by reference characters 18, 19. The inner bar 17 and the outer bar 18 has one end fixedly secured to one plate 12 while the bars 16 and 19 have one end fixedly secured to the other plate 12. Secured to the fixed end of the outer bar 18 and the fixed end of the inner bar 17 is a cross member 20, and secured to the fixed end of the inner bar 16 and the fixed end of the outer bar 19

is a cross member 21. Fixedly secured to each of said cross members is a pair of table legs 22. Each of the extension bars is of the same construction and is formed from an oblong strip of suitable material standing on edge and is cut away centrally of the upper portion to provide a seat 23 and a vertical shoulder 24. The upper portion of the free end of said bar is furthermore cut away to provide a plurality of stepped shoulders which are indicated by the reference characters 25, 26 and 27. Extending from the upper end of each of said shoulders is a longitudinal supporting ledge 28. One side of each bar has secured thereto a pair of spaced longitudinally extending members 29 and 30 which are arranged in superposed position and which have the opposing faces beveled as at 31, 32 to provide a dove-tailed groove 33. The bar 16 associates with the bar 18 and the bar 17 associates with the bar 19. The bar 16 is oppositely disposed with respect to and spaced from the bar 18 and the bar 17 is oppositely disposed with respect to and spaced from the bar 19.

Interposed between the bars 16 and 18 is a combined supporting and guide member 34 which consists of an oblong strip of material cut away near its upper portion centrally thereof to provide a seat including a longitudinally extending wall 35 and a pair of vertical walls 36. Each side of the member 34 is provided with a longitudinally extending dove-tailed tongue, one of which is indicated at 37 and the other at 38. The tongues 37 of the members 34 extend into the grooves 33 of the bars 16 and 19, and the tongues 38 of the members 34 extend into the grooves 33 of the members 17 and 18 and by such an arrangement the extension bars and members 34 are slidably connected together and furthermore, said extension bars are guided in their movement due to the fact that the members 34 are stationary. The members 34 are connected together by a cross member 39 to which is secured the central leg 40 of the table.

Preferably the stepped shouldered portion of each of the extension bars is made of cast metal and fixedly secured in position, but it is obvious that the extension bars can be made of the same material throughout. When the table is closed, the seats 23 of the extension bars are in alinement with the walls 35 of the combined guide and supporting members 34 and the said seats 23 and walls 35 support the extension leaves when they are in a nested position as is shown in Fig. 3. The seats 23 and walls 35, when the table is closed, are in alinement with the bottom walls of the cut away portions of the sections 10 and 11 of the frame of the table top.

The reference characters 41, 42, 43, 44 and 45 denote the extension leaves, the leaf

41 being twice the width of either of the other extension leaves and each of said leaves has the longitudinal edge thereof beveled, as at 45. One of the longitudinal edges of each of the leaves is cut away to provide a pocket 46. Secured to one longitudinal edge of each of the extension leaves and projecting at one side of the pocket 46 is a longitudinally extending metal strip 47, and secured to the other edge of the leaf is a longitudinally extending strip 48 having a hooked end 49 which is adapted to extend in the pocket 46 of an opposing leaf and engage over the projecting end of the strip 47, whereby the extension leaves are locked together when they are shifted to a position parallel with the plates 12 to increase the length of the table as clearly shown in Figs. 2 and 9. The inner longitudinal edge of each of the plates 12 is provided with a pocket 50 and a strip of metallic material 51 which overhangs the pocket 50 whereby the extension leaves can interlock with the plates 12. The leaf 41 has its beveled edges extending in opposite directions with respect to each other whereas the leaves 42, 44 have the longitudinal edges beveled in the same direction, and a like arrangement is had with respect to the leaves 43, 45, but the beveled edges of the leaves 43 and 45 extend in an opposite direction with respect to the beveled edges of the leaves 42, 44.

When the table is closed the extension leaves are nested below the plates 12 as is clearly shown in Fig. 3, with the leaf 41 mounted upon the seats 23 and walls 35, the leaves 42, 43 positioned upon the leaf 41 and the leaves 44, 45 positioned upon the leaves 42, 43, and with the inner portion of the plates 12 projecting over the leaves 44, 45. When the table is extended, the bar 16 moves in an opposite direction with respect to the bar 18 and the bar 17 moves in an opposite direction with respect to the bar 19, but the members 34 remain stationary. When the sections of the table top are moved away from each other, the beveled shoulders 25 of the extension bars engage the extension leaf 41 and elevate the nest of leaves, the leaf 41 moving upon the ledges 28 which project from the shoulders 25. When the leaf 41 is elevated upon the said ledges referred to, the leaves 44, 45 are positioned in parallelism with respect to the plates 12 and the hooks of the strip 48 of the leaves 44, 45 engage with the lower projecting ends of the strips 51 of the plates 12. If the table is only desired to be extended the distance created by the interposition of the leaves 44, 45 between the plates 12, then the further movement of the sections of the table top is discontinued. It will be assumed however that the table is to be extended to a greater length than that

as stated. The sections of the table top are pulled farther apart, causing the shoulders 26 to engage the leaf 41 and elevate the same upon the ledges 28 which project from the shoulders 26 whereby the leaves 42 and 43 will be positioned in parallelism and interlocked with the leaves 44, 45. It will be assumed that the length of the table should be further increased so the sections of the table top are further extended causing the shoulders 27 to engage the leaf 41 and shift it upon the upper of the ledges 28, whereby said leaf 41 will be in a parallel position with the outer of the leaves and will be interlocked with the leaves 42, 43. It will be assumed that the table is to be closed. By pushing the sections of the table top toward each other, the leaf 41 lowers and detaches itself from the leaves 42, 43, the leaf being supported upon the second of the ledges 28, a further movement of the sections of the table top toward each other will cause the leaves 42, 43 to ride over and upon the leaf 41, the latter then being supported by the lower of the edges 28, a further movement of the sections of the table top toward each other will cause the leaves 44, 45 to ride over and upon the leaves 42, 43, and the leaf 41 will then rest upon the seats 23 and walls 25. On a further movement of the sections of the table top toward each other, the inner ends of the plates 12 will abut and conceal the nest of extension leaves, as clearly shown in Fig. 3. As the sections of the table top are moved toward each other the leaves 42, 43 move out of interlocking engagement with the leaf 41, the leaves 44, 45 move out of interlocking engagement with the leaves 42, 43, and the plates 12 move out of interlocking engagement with the leaves 44, 45.

To cause the sections of the table top to move in unison, the cross member 39 has pivotally connected thereto, as at 52, an inclined lever 53 which projects from each side of the member 39 and has pivotally connected to one end, as at 54, a link 55, and at its other end, as at 56, a link 57. For limiting the movement of the lever 53 so as to keep it off dead center, a stop 58 is carried by the member 39 and positioned in the path of the movement of the lever 53. The link 57 is secured, as at 59, to the cross member 20, and the link 55 is secured, as at 60 to the cross member 21.

The reference character 61 denotes braces for the plates 12 and which are secured, as at 62, to the lower face of the plates 12 which are also secured to the braces 20, 21 by the means which is utilized for connecting the ends of said links to said member 21.

What we claim is:

1. An extension table comprising a stationary middle section and a pair of shiftable end sections, stationary guides fixed to said middle section, a nest of extension leaves normally supported by said guides and including a lower supporting leaf and pairs of superposed leaves, the lower pair supporting the upper and the lowermost pair mounted upon the lower leaf, the leaves of each pair normally arranged in parallelism and each independent of the other, stepped elevating bars connected to said guides and further connected to and movable with the end sections and successively engaging and elevating said nest for successively positioning the leaves of each pair flush with the upper surface of the table top and for further positioning said supporting leaf parallel with the other leaves, and means for drawing the leaves of each pair off on opposite sides of their support and for coupling them with the end sections and for further coupling the supporting leaf with the leaves of the lowermost pair when the end sections are pulled apart.

2. An extension table comprising a stationary middle section and a pair of shiftable end sections, stationary guides fixed to said middle section, a nest of extension leaves normally supported by said guides and including a lower supporting leaf and pairs of superposed leaves, the lower pair supporting the upper and the lowermost pair mounted upon the lower leaf, the leaves of each pair normally arranged in parallelism and each independent of the other, stepped elevating bars connected to said guides and further connected to and movable with the end sections and successively engaging and elevating said nest for successively positioning the leaves of each pair flush with the upper surface of the table top and for further positioning said supporting leaf parallel with the other leaves, means for drawing the leaves of each pair off on opposite sides of their support and for coupling them with the end sections and for further coupling the supporting leaf with the leaves of the lowermost pair when the end sections are pulled apart, and an equalizing device connected to said middle section and to said end sections whereby the end sections are shifted in unison.

In testimony whereof we affix our signatures in the presence of two witnesses.

WILLIAM MCGALL.
THOMAS E. MORGAN.

Witnesses:

N. LOUIS BOGAN,
MAX H. SROLOVITZ.