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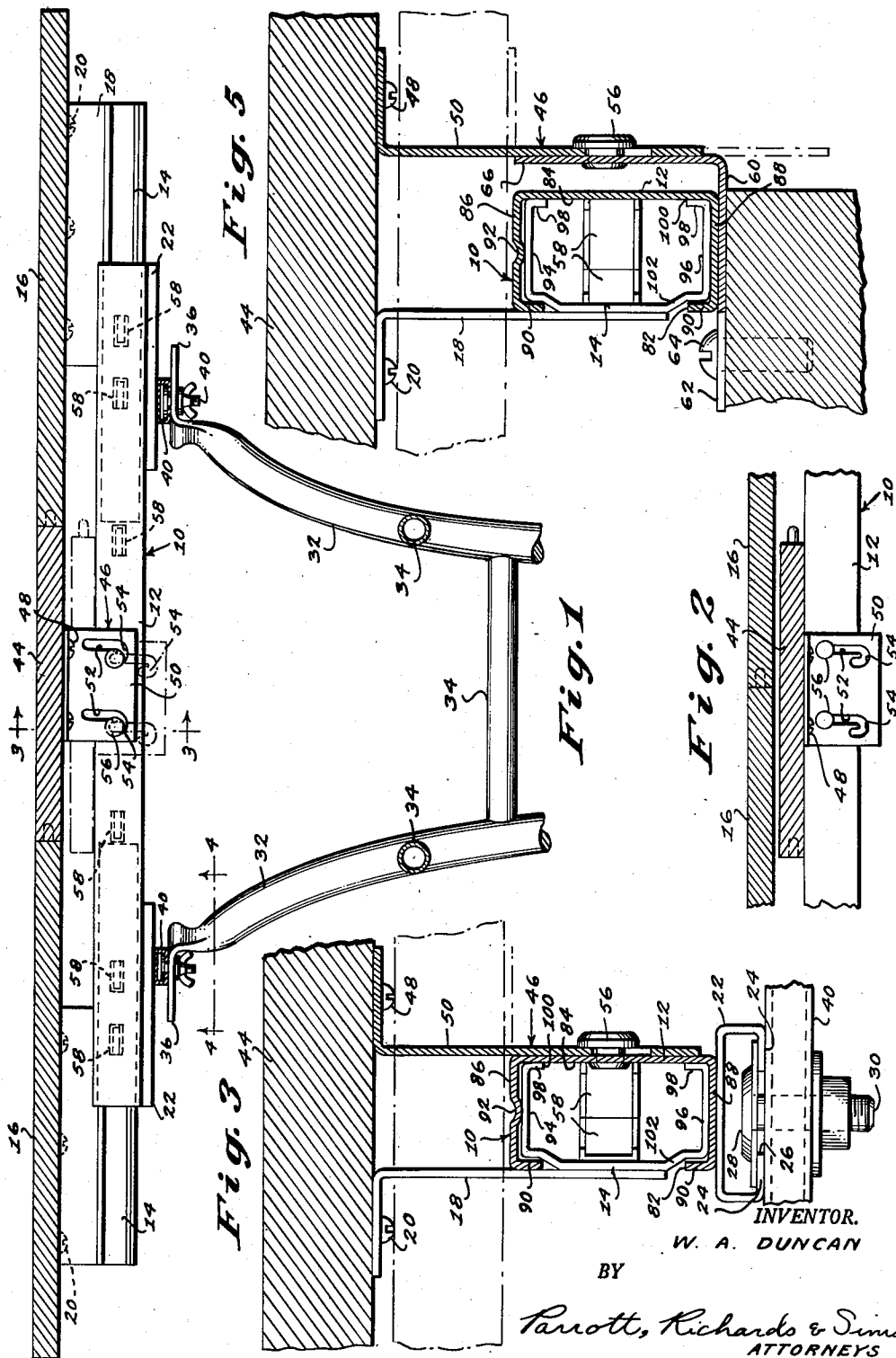
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METAL SLIDE CONSTRUCTION FOR EXTENSION TABLES

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2 Sheets-Sheet 1



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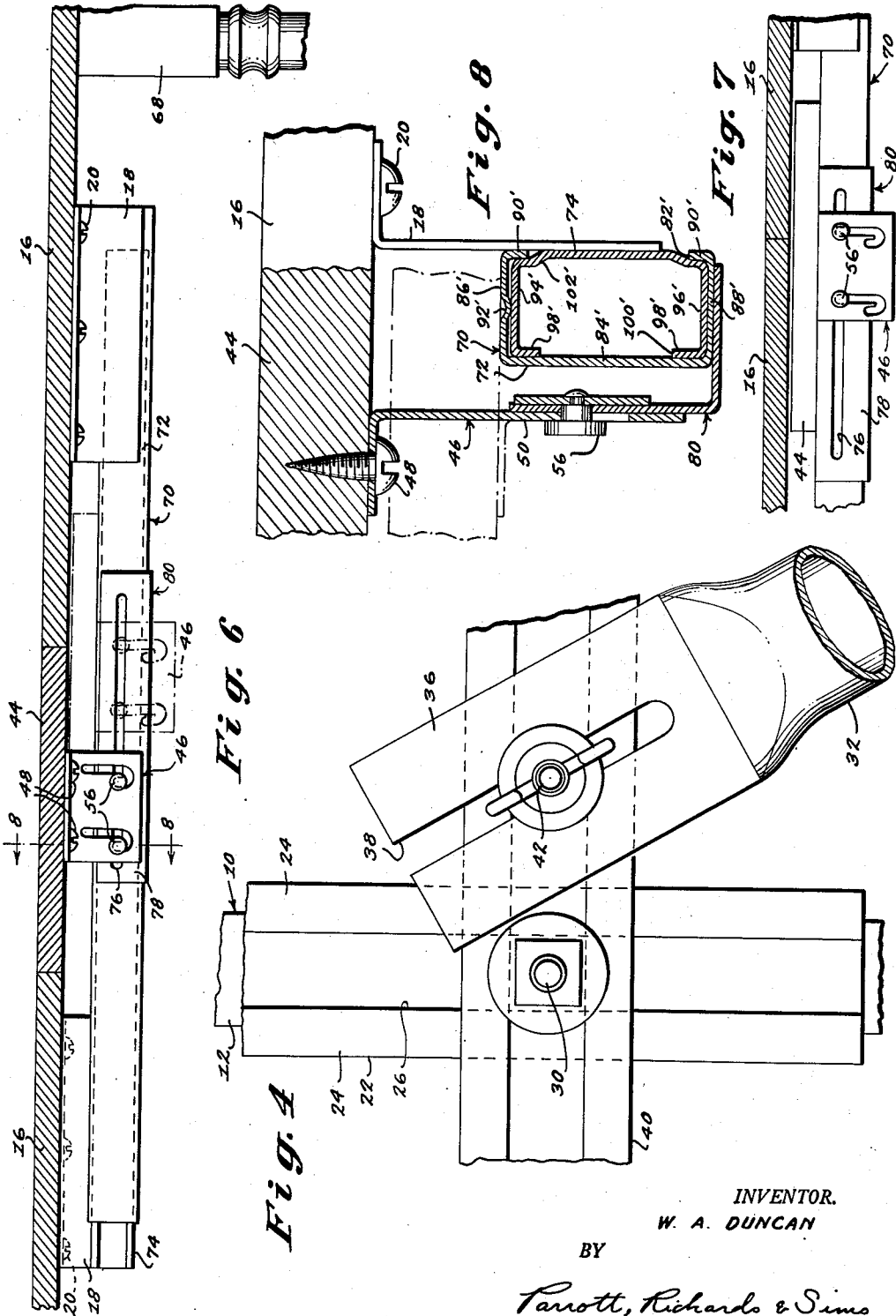
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2 Sheets-Sheet 2



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METAL SLIDE CONSTRUCTION FOR
EXTENSION TABLES

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1 Claim. (Cl. 311—71)

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This invention relates to table slide constructions and more particularly to an improved table slide of the type adapted for use in extension tables, and this application is a continuation-in-part of my copending application Serial No. 184,695, filed September 13, 1950.

Extension tables are commonly constructed with extension slide mechanisms attached to the primary leaves of the table adjacent each side thereof so that the primary leaves may be moved apart to allow disposition of an intermediate leaf between them for increasing the length of the table when desired. Often this auxiliary leaf is included directly in the table construction as a solid so-called "jump leaf" arranged to be raised or lowered into or out of active position, or it may be arranged as a folding leaf hinged midway of its length for folding into the plane of the table top when needed, or it may be simply an auxiliary leaf that is stored separately from the table when not in use.

In my prior Patent No. 2,003,926, issued June 4, 1935, there is disclosed a table slide construction for extension tables which is adapted to be formed of metal, although the function it performs is exactly the same as the wooden extension slides that are also used to a large extent in tables of this sort. Metal table slides, such as are disclosed in my above noted prior patent, offer substantial advantages over wooden ones from the standpoint of strength and lasting qualities, and the like, but they are difficult to construct for consistently smooth and even operation without rendering their structural arrangement unduly complicated and therefore expensive.

According to the present invention this difficulty is obviated by the provision of a table slide construction formed simply of telescoped metal slide members but in which at least one of the slide members is formed with a positioning boss serving to maintain the slide members snugly interfitted while spacing their adjacent telescoped faces to a substantial extent so as to avoid binding thereof, all as described more fully below in connection with the accompanying drawings, in which:

Fig. 1 is a longitudinal section view, partly fragmentary, of a pedestal type extension table incorporating a slide mechanism constructed in accordance with the present invention;

Fig. 2 is a fragmentary sectional detail corresponding to Fig. 1 but showing the disposition of the primary table leaves when retracted with the intermediate leaf removed;

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Fig. 3 is a sectional detail taken substantially on the line 3—3 in Fig. 1;

Fig. 4 is a fragmentary plan detail taken from the underside of the table on substantially the line 4—4 in Fig. 1, and illustrating the manner in which the pedestal legs of the table shown in Fig. 1 are attached;

Fig. 5 is a sectional detail corresponding generally to Fig. 3, but showing a modified form of mounting for the intermediate leaf;

Fig. 6 is a longitudinal section view, partly fragmentary, of a four-legged extension table incorporating a further modification of a slide mechanism constructed according to the present invention;

Fig. 7 is a fragmentary section detail corresponding to Fig. 6 but showing the primary table leaves retracted with the intermediate leaf removed; and

Fig. 8 is a sectional detail taken substantially on the line 8—8 in Fig. 6.

Referring now in detail to the drawings, Fig. 1 illustrates the essential elements of a pedestal type extension table incorporating a telescoping, metal, extension slide mechanism 10, similar to that shown in my above noted prior patent, but constructed in accordance with the present invention and incorporating means for mounting a "jump leaf" in combination with the slide mechanism 10, as will appear more at length presently.

The extension slide mechanism 10 comprises an outer central telescoping member 12 from each end of which inner telescoping members 14 are adapted to be extended. The inner telescoping members 14 are attached to the primary table leaves 16 through brackets 18 by fastening screws or the like as at 20, while the central member 12 of the slide mechanism 10 is arranged for attachment to the table pedestal by means of channel members 22 fixed on the bottom face of member 12. These channel members 22 are arranged to open downwardly, and are formed with reentrant flanges as at 24 (compare Figs. 3 and 4) defining a slot 26 in the open face of the channel members 22 by which they are adapted for receiving and retaining the heads 28 of attaching bolts as at 30 for the table pedestal. The table pedestal may take any convenient form, such as a group of four leg members as at 32 assembled with lateral braces 34 and formed at their upper ends with flattened portions 36 having slots as at 38 for receiving attaching bolts. These flattened portions 36 may be secured directly by the attaching bolts 30 carried in the channel members 22, or auxiliary channel mem-

bers may be mounted transversely of the channel members 22 by the bolts 30 for carrying attaching bolts as at 42 to secure the pedestal legs 32 when greater adjustability is desired. In any event, it will be understood that the two pedestal legs 32 and the slide mechanism 10 shown in Fig. 1 are duplicated adjacent each side of the table.

The primary table leaves 16 are shown moved apart in Fig. 1 with a jump leaf 44 interposed. This jump leaf 44 is mounted, as disclosed in the above noted copending application, in combination with the slide mechanism 10, on brackets 46 for manipulation between raised position, as shown in Fig. 1, and lowered position, as shown in Fig. 2. The brackets 46 are adapted for attachment to the side of the jump leaf 44 by fastening screws as at 48, and have a flat-face portion 50 that is disposed in a vertically dependent relation to the jump leaf 44 when the brackets 46 are attached. This flat-face portion of the brackets 46 is further formed with a pair of spaced bayonet slots 52 which extend vertically for accommodating movement of the jump leaf 44 between the raised and lowered positions, and these slots 52 have a reversely curved locking or bayonet portion 54 at their lower end for retaining the jump leaf 44 in raised position. The jump leaf mounting brackets 44 are assembled with the slide mechanisms 10 on pin elements 56 spaced for disposition in the slots 52 to guide and support the brackets 46 and the jump leaf 44 which they carry. It will be understood that the primary table leaves 16 are moved apart sufficiently to allow clearance for interposing the jump leaf 44, when it is raised from the lowered position shown in Fig. 2, before they are moved back into abutting relation as illustrated in Fig. 1, the respective members of the slide mechanisms 10 being fitted with stop elements as indicated at 58 which are spaced properly to allow this movement of the primary table leaves 16.

The pin elements 56 by which the jump leaf mounting brackets 46 are assembled with the slide mechanisms 10 may be supported directly on the slide mechanisms 10 as illustrated in Fig. 3, or they may be carried on separate brackets 60 as illustrated in Fig. 5. These separate brackets 60 are adapted particularly for use with slide mechanisms in which no provision has been made for supporting the pin elements 56 directly, or for use in instances where the construction of the slide mechanism being used does not readily permit direct attachment of the pin elements 56, as in the case of wooden table slides, and may be formed with an extending slotted portion as at 62 for attachment as at 64 to a table pedestal if desired. In any case, the brackets 60 are further formed with a flat-face portion 66 disposed to extend upwardly in spaced relation with respect to the slide mechanism 10 for carrying the pin elements 56 with the same general disposition they would have if supported directly on the slide mechanisms 10.

Figs. 6, 7 and 8 illustrate a further modification of the jump leaf mounting means of the present invention for use in extension tables of the four-legged type in which the table-legs are secured directly to the primary table leaves 16 as indicated at 68 in Fig. 6. With this type of table a different form of slide mechanism 70 is used in which only two telescoping members are employed, an outer member 72 attached to one of the primary table leaves 16 by a bracket 18 and fastening screws 20, as in the previous instance described above, and an inner member 74 simi-

larly attached to the other primary table leaf 16. This arrangement makes it necessary to provide for lateral as well as vertical movement of the jump leaf 44 in shifting it between raised and lowered positions. In Fig. 6, the jump leaf 44 is shown in raised position, and the lateral movement that must be available in manipulating it is illustrated by comparing Fig. 7 in which the jump leaf 44 is shown in lowered position. To provide for this necessary lateral movement, the pin elements 56 are mounted for sliding movement in a horizontal slot 76 formed in a vertically extending flat-face portion 78 of a bracket 38 attached to the bottom face of the outer member 72 of slide mechanism 70. As in the case of the bracket 60 employed in the embodiment illustrated in Fig. 5, the flat-face portion 78 of the bracket 38 is disposed to extend vertically upward in spaced relation with respect to the slide mechanism 70, so that the pin elements 56 are arranged for proper disposition in the bayonet slots 52 of the jump leaf mounting brackets 46. As a result of this lateral movement allowed for the pin elements 56, horizontal as well as vertical adjustment of the jump leaf 44 is readily permitted.

The slide mechanisms 10 and 70 employed in the several modified arrangements described above are all commonly arranged in that the outer slide members 12 and 72 are, in each instance, tubular in form with a longitudinal slot as at 32 (Figs. 3 and 5) or 32' (Fig. 8) extending throughout their length in one side face, and the inner slide members 14 and 74 assembled in telescoping relation therewith are of generally corresponding tubular form. As illustrated in the drawings, the tubular form of the outer slide members 12 and 72 is obtained by employing a rectangular cross section in which a side wall portion 34 or 34' is joined with top and bottom wall portions 36 or 36' and 38 or 38' that are each formed at their extending edges with lip portions or flanges 39 or 39' defining the previously mentioned longitudinal slot 32 or 32' in the opposite side face. Also, it should be noted particularly that the top wall portions 36 and 36' are in each instance further formed according to the present invention with a longitudinal boss 32 or 32' disposed inwardly thereof.

The telescoped inner slide members 14 and 74 are likewise formed with a generally corresponding rectangular cross section in which top and bottom wall portions 34 or 34' and 36 or 36' are flanged at 38 or 38' to form a longitudinal slot 100 or 100' that is disposed adjacent the side wall portion 34 or 34' of the outer slide member 12 or 72 in assembling the slide mechanisms 10 or 70, and in which the opposite side wall of the inner slide members 14 or 74 is shouldered as at 102 or 102' so that it is shaped to extend in assembled relation through the relatively wide longitudinal slot 32 or 32' formed by the spaced lips or flanges 39 or 39' of the outer slide members 12 or 72 to a disposition substantially flush with the outer side faces of the flanges 90 or 90'.

The shouldered side wall form at 102 or 102' employed in the inner slide members 14 and 74 allows the attaching brackets 18 to be secured directly thereon as illustrated in the drawings without interference with the outer slide members 12 or 72 and without requiring any irregular or special formation in the depending portion of the brackets 18, and thereby substantially simplifies the necessary attaching bracket structure.

The previously mentioned longitudinal boss 92

or 92' in the outer slide members 12 and 72 further simplifies the structure of the slide mechanisms 10 and 70 constructed in accordance with the present invention through its inwardly disposed arrangement for contact with the adjacent or corresponding top portions 94 or 94' of the inner slide members 14 or 74. The result of this arrangement is that substantially line contact is established between the telescoped slide members of the slide mechanisms 10 and 70 for maintaining them snugly interfitted while spacing the adjacent faces of the respective top wall portions 86 and 94 or 86' and 94' to avoid binding of the slide members during operation of the slide mechanisms 10 or 70. Also, the formation of the slide members with the longitudinal slots 82 or 82' and 100 or 100' allows a springing adjustment of these members to each other as they are assembled to form the slide mechanisms 10 and 70 so that a natural adjustment to the inter-fitting function of the longitudinal bosses 92 or 92' is obtained that provides a smooth and even action in the resulting assembly without any necessity for observing burdensome tolerance limitations in the course of manufacture.

The present invention has been described in detail above for purposes of illustration only and is not intended to be limited by this description or otherwise except as defined in the appended claim.

I claim:

A metal slide construction for extension tables comprising an outer slide member and at least one inner slide member assembled in tele-

scoped relation for relative sliding movement, said outer slide member being generally rectangular in cross section with a side portion having top and bottom portions joined thereto and each of which are formed at their extending edges with lip portions forming the opposite side portion with a relatively wide longitudinal slot throughout the length of said outer slide member, said inner slide members being of generally corresponding form and being assembled with the resulting longitudinal slot therein disposed adjacent the first mentioned side portion of said outer slide member, said outer slide member being further formed with a longitudinal boss disposed inwardly in the top portion thereof in line contact with the corresponding top portion of said inner slide members, and said inner slide members being further formed with a shouldered portion in the side portion thereof extending between the lip portions of said outer slide member to a disposition substantially flush with the rectangular cross section of said outer slide member.

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