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COMPOSITE TOOL HOLDER

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ABSTRACT

A composite tool holder has a base (10, 10B), a socket set (20, 20B), and a hand-tool set (30, 30B). The base (10, 10B) has a substrate (11, 11A, 11B) and a first-track (12, 12A, 12B). The first-track (12, 12A, 12B) has an upper-opening (121) and a sliding-slot (122, 122B). The socket set (20, 20B) is connected to the base (10, 10B) and has multiple positioning-blocks (22, 2B, 22C) slidably mounted in the sliding-slot (122, 122B) of the first-track (12, 12A, 12B). The hand-tool set (30, 30B) is connected to the base (10, 10B) and has at least one holding-component (31, 31B) deposited on the substrate (11, 11A).

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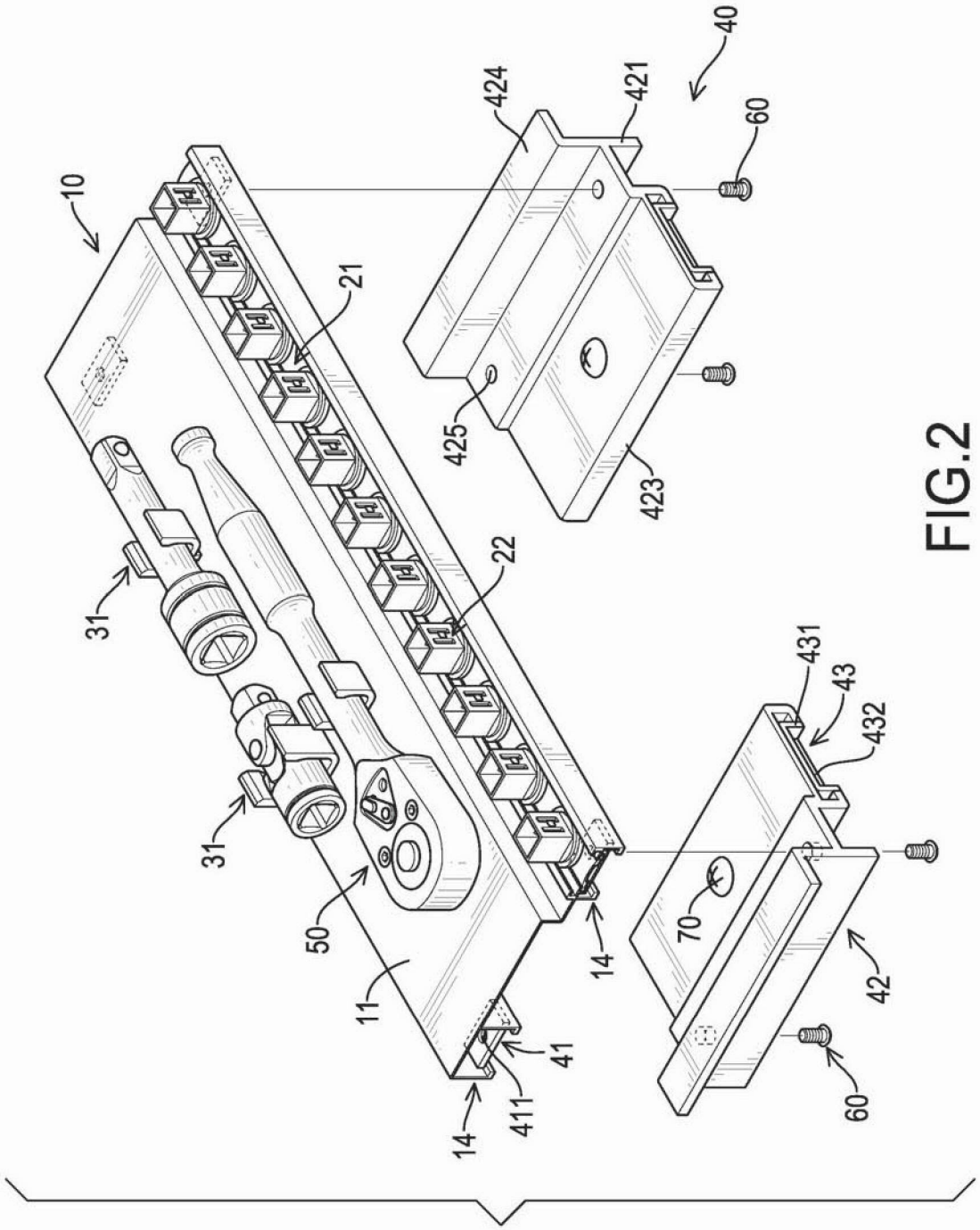

FIG.2

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COMPOSITE TOOL HOLDER

1. Field of the Invention

The present invention relates to a holder, specifically to a composite tool holder capable of storing both hand tools and sleeves.

2. Description of the Related Art

A conventional tool holder mainly has a base and multiple positioning-blocks movably mounted in the base. A sliding track is formed on a top surface of the base, and each one of the positioning-blocks has a sliding base formed on a bottom of the positioning-block for engaging with the sliding track. An inserting-portion is formed upward on a top surface of the sliding base of the positioning-block, and the inserting-portion can be a socket or a hanging rod. When the inserting-portion of each one of the positioning-blocks is the socket, the socket can be used for storing a sleeve. Furthermore, when the inserting-portion of each one of the positioning-blocks is the hanging rod, a hand tool such as a socket wrench can be hung on the hanging rod to store the hand tools.

However, a user mostly needs to use the sleeve and the hand tool at the same time to fasten or unfasten a fastener, such as a bolt or a nut, but the conventional tool holder cannot hold the sleeve and the hand tool at the same time. Oftentimes the user may forget to bring the sleeve or the hand tool, resulting in inconvenience. Moreover, when the user needs to use the sleeve and the hand tool at the same time, the conventional tool holder may cause inconvenience in carrying or storing the sleeve and the hand tool. Therefore, the conventional tool holder needs to be improved.

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The main objective of the present invention is to provide a composite tool holder that may store both hand tools and sleeves.

According to a first aspect, there is provided a composite tool holder comprising:

a base having

a substrate having

a top surface;

a bottom surface;

two elongated sides;

a length; and

at least one slot formed through the top surface and the bottom surface of the substrate;

a first-track formed on one of the elongated sides of the substrate, and having

a length being equal to the length of the substrate;

a top surface;

a bottom surface;

an upper-opening formed through the top surface of the first-track; and

a sliding-slot formed in the first-track and communicating with the upper-opening;

a socket set connected to the base and having multiple positioning-blocks rotatably mounted in the first-track and moved along the first-track; and

a hand-tool set connected to the base and having

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at least one holding-component deposited on the substrate and having

a combining-portion mounted through one of the at least one slot of the substrate and having a positioning-protrusion formed on an outer surface of the combining-portion and abutting the substrate; and

a holding-portion integrally formed on a top surface of the combining-portion and mounted above the substrate.

In one form, the base has a second-track formed on the bottom surface of the first-track, and the second-track has a top-opening formed through the bottom surface of the first-track and communicating with the sliding-slot, and an engaging-slot formed in the second-track and communicating with the top-opening. The socket set has a positioning-plate disposed in the engaging-slot of the second-track, and the positioning-plate has two long opposite sides, a middle, and an abutting-portion being arc-shaped, being bent upwardly from the long opposite sides to the middle of the positioning-plate and having a top surface extending into the sliding-slot of the first-track to abut against the positioning-blocks.

In one form, the base has two enclosed-tracks respectively formed on the bottom surfaces of the substrate and the first-track, the enclosed-track that is formed on the bottom surface of the substrate communicates with the at least one slot, and the enclosed-track that is formed on the bottom surface of the first-track is mounted around the second-track. Each one of the enclosed-tracks has a length being equal to the length of the substrate and the length of the first-track, a bottom surface, a lower-opening formed through the bottom surface of the enclosed-track, and an enclosed-slot formed in the enclosed-track and

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communicating with the lower-opening.

In one form, the composite tool holder has a bracket set detachably connected to the base beside the socket set. The bracket set has multiple fixing-plates disposed in one of the enclosed-tracks and near an end of the substrate or an end of the first-track, and two supporting-bases respectively connected to two sides of the base to enclose the first-track, the second-track, and the enclosed-tracks. Each one of the fixing-plates has a fixing-hole formed through the fixing-plate and communicating with the lower-opening of a corresponding enclosed-track, and a fixing-component connected to the fixing-plate via the lower-opening.

In one form, each one of the supporting-bases has an enclosed-plate disposed longitudinally and abutting one of the sides of the base, a supporting-plate transversally formed on a top of the enclosed-plate and aligning to the substrate, an extending-plate transversally formed on and protruding from the enclosed-plate under the base, being opposite to the supporting-plate, and having two through-holes formed through the extending-plate at a spaced interval to enable the fixing-components to respectively mount through the through-holes and respectively connect to the fixing-holes of the fixing-plates that are mounted at a same side of the base, and a connecting-track formed downwardly on a bottom of the extending-plate away from the enclosed-plate. The bracket set has two magnetic-bases respectively connected to the supporting-bases under the base, and each one of the magnetic-bases has a combining-frame securely mounted in the connecting-track of one of the supporting-bases, a fastening component mounted through the combining-frame

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and the connecting-track to connect the combining-frame with the connecting-track, and at least one magnetic-block securely mounted on a bottom of the combining-frame opposite to the connecting-track.

Other objectives, advantages and novel features of the invention will become more apparent from the following detailed description when taken in conjunction with the accompanying drawings.

IN THE DRAWINGS:

Fig. 1 is a perspective view of a first embodiment of a composite tool holder in accordance with the present invention;

Fig. 2 is an exploded perspective view of the composite tool holder in Fig. 1;

Fig. 3 is a further exploded view of the composite tool holder in Fig. 2;

Fig. 4 is a side view in partial section of the composite tool holder in Fig. 1;

Fig. 4A is a partial enlarged view of Fig. 4;

Fig. 5 is a top side view of the composite tool holder in Fig. 1;

Fig. 6 is an enlarged side view in partial section of the composite tool holder in Fig. 5 along line 6-6;

Fig. 7 is another enlarged side view in partial section of the composite tool holder in Fig. 1;

Fig. 8 is a perspective view of a second embodiment of a composite tool holder in accordance with the present invention;

Fig. 9 is an exploded perspective view of the composite tool holder in Fig. 8;

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Fig. 10 is a perspective view of a third embodiment of a composite tool holder in accordance with the present invention;

Fig. 11 is an exploded perspective view of the composite tool holder in Fig. 10;

Fig. 12 is a further exploded view of the composite tool holder in Fig. 11;

Fig. 13 is another exploded view of the composite tool holder in Fig. 11;

Fig. 14 is a top side view of the composite tool holder in Fig. 10;

Fig. 15 is a side view in partial section of the composite tool holder in Fig. 14 along line 15-15;

Fig. 16 is an enlarged side view in partial section of the composite tool holder in Fig. 14 along line 16-16;

Fig. 17 is another enlarged side view in partial section of the composite tool holder in Fig. 10;

Figs. 17A and 17B are enlarged and cross sectional side views of the composite tool holder in Fig. 17;

Fig. 18 is a perspective view of a fourth embodiment of a composite tool holder in accordance with the present invention;

Fig. 19 is an exploded perspective view of the composite tool holder in Fig. 18;

Fig. 20 is a further exploded view of the composite tool holder in Fig. 19;

Fig. 21 is a top side view of the composite tool holder in Fig. 18;

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Fig. 22 is an enlarged side view in partial section of the composite tool holder in Fig. 21 along line 22-22;

Fig. 23 is an enlarged and operational perspective view of the composite tool holder in Fig. 18; and

Fig. 24 is a perspective view of a fifth embodiment of a composite tool holder in accordance with the present invention.

With reference to Figs. 1 to 3, a first embodiment of a composite tool holder in accordance with the present invention has a base 10, a socket set 20, a hand-tool set 30, and a bracket set 40.

With reference to Figs. 2 to 4, the base 10 is an extruded aluminum structure and comprises a substrate 11, a first-track 12, a second-track 13, and two enclosed-tracks 14. The substrate 11 is a rectangular plate extending transversally and has a top surface, a bottom surface, two elongated sides, a length, at least one slot 111, and at least one receiving-hole 112. The at least one slot 111 is strip-shaped and is formed through the top surface and the bottom surface of the substrate 11. Furthermore, the substrate 11 has three slots 111 formed through the substrate at spaced intervals. The at least one receiving-hole 112 is formed through the top surface and the bottom surface of the substrate 11.

With reference to Figs. 4 and 4A, the first-track 12 is formed on one of the elongated sides of the substrate 11 and has a length, a top surface, a bottom surface, an upper-opening 121, and a sliding-slot 122. The length of the first-track 12 is equal to the length of the substrate 11. Additionally, a height is formed between the first-track 12 and the substrate 11. The upper-opening 121 is formed through the top surface of the first-track 12. The sliding-slot 122 is formed in the first-track 12 and communicates with the upper-opening 121.

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Furthermore, the sliding-slot 122 has a width W1 wider than a width W2 of the upper-opening 121.

The second-track 13 is formed on the bottom surface of the first-track 12, and has a top-opening 131 and an engaging-slot 132. The top-opening 131 is formed through the bottom surface of the first-track 12 and communicates with the sliding-slot 122. The engaging-slot 132 is formed in the second-track 13 and communicates with the top-opening 131. Additionally, the top-opening 131 has a width W3 narrower than the width W1 of the sliding-slot 122, and the engaging-slot 132 has a width W4 wider than the width W3 of the top-opening 131.

The enclosed-tracks 14 are respectively formed on the bottom surfaces of the substrate 11 and the first-track 12, and each one of the enclosed-tracks 14 has a length equal to the length of the substrate 11 and the length of the first-track 12. The enclosed-track 14 that is formed on the bottom surface of the substrate 11 communicates with the at least one slot 111, and the enclosed-track 14 that is formed on the bottom surface of the first-track 12 is mounted around the second-track 13. Each one of the enclosed-tracks 14 has a bottom surface, a lower-opening 141, and an enclosed-slot 142. The lower-opening 141 is formed through the bottom surface of the enclosed-track 14. The enclosed-slot 142 is formed in the enclosed-track 14 and communicates with the lower-opening 141. Furthermore, the lower-opening 141 has a width W5 narrower than a width W6 of the enclosed-slot 142.

With reference to Figs. 2 and 3, the socket set 20 is connected to the base 10 and has a positioning-plate 21 and multiple positioning-blocks 22. The

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positioning-plate 21 is a strip-shaped plate with resilience, is disposed in the engaging-slot 132 of the second-track 13, and has two long opposite sides, a middle, and an abutting-portion 211. The abutting-portion 211 is arc-shaped and is bent upwardly from the long opposite sides to the middle of the positioning-plate 21 and has a top surface extending into the sliding-slot 122 of the first-track 12.

Each one of the positioning-blocks 22 is rotatably and slidably mounted in the sliding-slot 122 of the first-track 12, abuts the positioning-plate 21, and has an engaging-portion 221 and an inserting-portion 222. The engaging-portion 221 of the positioning-block 22 is mounted in the sliding-slot 122 of the first-track 12, abuts the abutting-portion 211 of the positioning-plate 21, and has a bottom surface and a top surface. Furthermore, the engaging-portion 221 of the positioning-block 22 may be a disk of a flattened structure or a stepped structure and may be rotated relative to the first-track 12. The inserting-portion 222 is formed on and protrudes from the top surface of the engaging-portion 221 and extends out of the first-track 12 via the upper-opening 121. The inserting-portion 222 has an outer surface and a constraining-protrusion 223. The constraining-protrusion 223 is deposited on the outer surface of the inserting-portion 222, so that a sleeve may firmly engage with the inserting-portion 222 of the positioning-block 22.

With reference to Figs. 3, 5, and 6, the hand-tool set 30 is connected to the base 10 and has at least one holding-component 31. Each one of the at least one holding-component 31 is connected to the substrate 11 and has a combining-portion 311 and a holding-portion 312. The combining-portion 311 is

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a plate and is mounted through one of the at least one slot 111 of the substrate 11. The combining-portion 311 has a positioning-protrusion 313 formed on an outer surface of the combining-portion 311 and abutting the substrate 11, so that the at least one holding-component 31 can be firmly mounted on the substrate 11. The holding-portion 312 is integrally formed on a top surface of the combining-portion 311 and is mounted above the substrate 11.

The holding-portion 312 is U-shaped with resilience, such that the at least one holding-component 31 can position a hand tool 50 on the substrate 11. Additionally, the holding-portion 312 of the holding-component 31 has two holding-protrusions 314 formed on an inner surface of the holding-portion 312 respectively near two free ends of the holding-portion 312. Furthermore, an amount of the at least one holding-component 31 of the hand-tool set 30 and an amount of the at least one slot 111 of the substrate 11 are the same. A protrusion-head 51 of the hand tool 50 can extend to the bottom of the substrate 11 through the receiving-hole 112 of the substrate 11, such that the hand tool 50 can be positioned firmly on the substrate 11 by the at least one holding-component 31 and the receiving-hole 112.

With reference to Figs. 1, 2, and 7, the bracket set 40 is detachably connected to the base 10 beside the socket set 20, and has multiple fixing-plates 41, two supporting-bases 42, and two magnetic-bases 43. Each one of the fixing-plates 41 is a rectangular plate and disposed in one of the enclosed-tracks 14 and near an end of the substrate 11 or an end of the first-track 12. Each one of the fixing-plates 41 has a fixing-hole 411 formed through the fixing-plate 41 and communicating with the lower-opening 141 of a corresponding enclosed-track

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14, so that a fixing-component 60 can be connected to the fixing-plate 41 via the lower-opening 141. The supporting-bases 42 are extruded aluminum structures and are respectively connected to two sides of the base 10, so as to enclose the first-track 12, the second-track 13, and the enclosed-tracks 14.

Each one of the supporting-bases 42 has an enclosed-plate 421, an extending-plate 422, and a connecting-track 423. The enclosed-plate 421 is disposed longitudinally and abuts one of the sides of the base 10, so as to enclose the first-track 12, the second-track 13, and the enclosed-tracks 14. Furthermore, each supporting-base 42 has a supporting-plate 424 transversally formed on a top of the enclosed-plate 421 and aligning to the substrate 11. Therefore, a user can lift the composite tool holder by holding the two supporting-plates 424.

The extending-plate 422 is transversally formed on and protrudes from the enclosed-plate 421 under the base 10, is opposite to the supporting-plate 424, and has two through-holes 425 formed through the extending-plate 422 at a spaced interval, so that two fixing-components 60 may be respectively mounted through the through-holes 425 and respectively connected to the fixing-holes 411 of the fixing-plates 41 that are mounted at a same side of the base 10. Then, the supporting-base 42 can be disposed on the side of the base 10 by the engagement of the two fixing-components 60 and the two corresponding fixing-plates 41. The connecting-track 423 is formed downwardly on a bottom of the extending-plate 422 away from the enclosed-plate 421. Furthermore, a gap G is formed between the connecting-track 423 and the base 10.

The magnetic-bases 43 are respectively connected to the supporting-bases 42 under the base 10, and each one of the magnetic-bases 43 has a

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combining-frame 431 and at least one magnetic-block 432. The combining-frame 431 is U-shaped and is securely mounted in the connecting-track 423 of the supporting-base 42. Furthermore, a fastening component 70 is mounted through the combining-frame 431 and the connecting-track 423 to connect the combining-frame 431 with the connecting-track 423. The at least one magnetic-block 432 is securely mounted on a bottom of the combining-frame 431 opposite to the connecting-track 423 to provide an attaching effect to metal objects, so that the composite tool holder may be mounted on a tool cabinet by the magnetic-bases 43.

With reference to Figs. 1 and 4, when the first embodiment in accordance with the present invention is in use, the user can mount a sleeve around the inserting-portion 222 of one of the positioning-blocks 22, and the sleeve can be firmly disposed on the positioning-block 22 by the constraining-protrusion 223. The user can apply a force to the sleeve to drive the positioning-block 22 to rotate relative to the positioning-plate 21, so that a size mark on an outer surface of the sleeve is rotated to face the user for ease of retrieving and identifying the sleeve. The engaging-portion 221 of each positioning-block 22 abuts the abutting-portion 211 of the positioning-plate 21, so that after the user rotates or slides the sleeve, the positioning-block 22 and the positioning-plate 21 abut each other and are firmly disposed in the first-track 12. Therefore, the sleeve on the positioning-block 22 does not rotate or slide relative to the first-track 12. That is, the sleeve can be firmly disposed on the base 10.

With further reference to Figs. 3, 4, and 6, the user can position the hand tool 50 on the substrate 11 by the two holding-protrusions 314 of the

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holding-component 31 of the hand-tool set 30, and the hand tool 50 can cooperate with the sleeve mounted on the positioning-block 22. The hand tool 50 includes the protrusion-head 51 extending to the bottom of the substrate 11 via the receiving-hole 112 of the substrate 11. In addition, the hand tool 50 can be positioned on the substrate 11 by the holding-component 31 and the receiving-hole 112. Furthermore, with reference to Figs. 1 and 2, after the sleeve and the hand tool 50 are positioned on the base 10 by the socket set 20 and the hand-tool set 30, the sleeve and the hand tool 50 disposed on the base 10 can be securely mounted on the tool cabinet by a magnetic force that is provided by the magnetic-bases 43 of the bracket set 40. The sleeve and the hand tool 50 can be stored at the same time to facilitate convenience in use and prevent the user from forgetting to bring the sleeve or the hand tool 50.

With reference to Figs. 8 and 9, a second embodiment of a composite tool holder in accordance with the present invention is substantially the same as the first embodiment except for the following features. The first-track 12A and the substrate 11A are formed with each other at a same horizontal level, so there is no height formed between the first-track 12A and the substrate 11A.

With reference to Figs. 10 to 13, a third embodiment of a composite tool holder in accordance with the present invention is substantially the same as the first embodiment except for the following features. The substrate 11B of the base 10B does not have the least one slot 111 that is disclosed in the first embodiment of the composite tool holder in accordance with the present invention. The substrate 11B has a receiving-hole 112B and multiple assembling-holes 113B formed through the top surface and the bottom surface of the substrate 11B at

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spaced intervals. With reference to Figs. 11 and 13, the first-track 12B is detachably connected to one of the elongated sides of the substrate 11B by a hooking structure between the substrate 11B and the first-track 12B, and the length of the first-track 12B is equal to the length of the substrate 11B.

With reference to Figs. 11, 13, and 16, one of the enclosed-tracks 14B is formed downwardly on the bottom surface of the substrate 11B along one of the two elongated sides that is opposite to the first-track 12B, and communicates with some of the assembling-holes 113B. The other one of the enclosed-tracks 14B is formed downwardly on the bottom surface of the first-track 12B around the second-track 13B. The enclosed-tracks 14B have lengths equal to the lengths of the substrate 11B and the first-track 12B.

With reference to Figs. 11, 13, 16, and 17, the socket set 20B is connected to the base 10B and has multiple engaging recesses 212B being curved and formed in the top surface of the abutting-portion 211B at spaced intervals. Each one of the positioning-blocks 22B is rotatably and slidably mounted in the sliding-slot 122B of the first-track 12B and has an engaging element 224B formed on and protruding downwardly from the bottom surface of the engaging-portion 221B and selectively engages with one of the engaging recesses 212B of the positioning-plate 21B to hold the positioning-block 22B securely on the positioning-plate 21B without sliding relative to the first-track 12B. Additionally, the engaging element 224B is an engaging ring.

With reference to Figs. 17, 17A, and 17B, when each one of the positioning-blocks 22B is mounted on the positioning-plate 21B, a part of the engaging ring engages in one of the engaging recesses 212B and the remaining

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part of the engaging ring presses against the top surface of the abutting-portion 211B. Then, the abutment relationship between the engaging ring and the positioning-plate 21B may allow the part of the engaging ring to engage more securely in the corresponding engaging recess 212B, and the positioning-block 22B may be securely positioned on the base 10B by the positioning-plate 21B.

With reference to Figs. 11, 12, 14, and 15, the hand-tool set 30B is detachably connected to the base 10B, the at least one holding-component 31B is deposited on the substrate 11B. Furthermore, the hand-tool set 30B has a mounting-cover 32B detachably mounted on the substrate 11B, and the mounting-cover 32B may be U-shaped and has a top surface, a bottom surface, at least one mounting-hole 321B, and multiple inserting-tubes 322B. The at least one mounting-hole 321B is formed through the top surface and the bottom surface of the mounting-cover 32B and aligns with the at least one receiving-hole 112B of the substrate 11B. The inserting-tubes 322B are formed on and protrude downwardly from the bottom surface of the mounting-cover 32B at spaced intervals, and are respectively mounted into the assembling-holes 113B of the substrate 11B when the bottom surface of the mounting-cover 32B abuts the top surface of the substrate 11B. Additionally, the mounting-cover 32B has multiple washers 323B respectively mounted around the inserting-tubes 322B that extend through the substrate 11B, and multiple fasteners 324B are respectively connected to the inserting-tubes 322B and are pressed against the washers 323B. Then, the mounting-cover 32B is securely mounted on the substrate 11B.

Furthermore, each one of the at least one holding-component 31B is

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formed on the top surface of the mounting-cover 32B and has a combining-portion 311B and a holding-portion 312B. The combining-portion 311B is formed on the top surface of the mounting-cover 32B and has a top surface. The holding-portion 312B is U-shaped, is integrally formed on the top surface of the combining-portion 311B, and is disposed above the mounting-cover 32B. Then, the hand tool 50 may be securely mounted on the mounting-cover 32B over the substrate 11B by the holding-portion 312B of the at least one holding-component 31B. With reference to Figs. 12 and 15, the protrusion-head 51 of the hand tool 50 may extend through the substrate 11B via the at least one mounting-hole 321B and the at least one receiving-hole 112B, such that the hand tool 50 may be positioned firmly on the mounting-cover 32B over the substrate 11B by the at least one holding-component 31B, the at least one mounting-hole 321B, and the at least one receiving-hole 112B.

With reference to Figs. 11, 15, and 16, the bracket set 40B is detachably connected to the base 10B beside the socket set 20B, and does not have the magnetic-bases 43 that are disclosed in the first embodiment of the composite tool holder in accordance with the present invention. Each one of the fixing-plates 41B is a rectangular plate and is disposed in one of the enclosed-tracks 14B and near an end of the substrate 11B or an end of the first-track 12B. Each one of the supporting-bases 42 does not have the connecting-track 423 that is disclosed in the first embodiment of the composite tool holder in accordance with the present invention.

With reference to Figs. 10, 16, and 17, when the third embodiment of the invention is in use, the user can mount a sleeve on one of the positioning-blocks

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22B of the socket set 20B, and the user can apply a force to the sleeve to drive the positioning-block 22B to rotate relative to the positioning-plate 21B, so that a size mark on an outer surface of the sleeve is rotated to face the user for ease of retrieving and identifying the sleeve. In addition, the engaging-portion 221B of each one of the positioning-blocks 22B abuts the abutting-portion 211B of the positioning-plate 21B, and the engaging element 224B of each one of the positioning-blocks 22B engages with one of the engaging recesses 212B of the positioning-plate 21B to hold the positioning-block 22B securely on the positioning-plate 21B without sliding relative to the first-track 12B. After the user rotates or slides the sleeve, the positioning-block 22B and the positioning-plate 21B abut each other and are firmly disposed in the first-track 12B by the engagement between the engaging element 224B and a corresponding engaging recess 212B. Therefore, the sleeve on the positioning-block 22B does not rotate or slide relative to the first-track 12B. That is, the sleeve can be firmly disposed on the base 10B.

With reference to Figs. 10, 12, 14, and 15, the user can position the hand tool 50 on the mounting-cover 32B over the substrate 11B by the at least one holding-component 31B of the hand-tool set 30B, and the hand tool 50 can cooperate with the sleeve mounted on the positioning-block 22B. The hand tool 50 has a protrusion-head 51B extending to the bottom surface of the substrate 11B via the at least one mounting-hole 321B of the mounting-cover 32B and the at least one receiving-hole 112B of the substrate 11B. In addition, the hand tool 50 can be positioned on the mounting-cover 32B over the substrate 11B by the at least one holding-component 31B, the at least one mounting-hole 321B, and the

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at least one receiving-hole 112B. Furthermore, after the sleeve and the hand tool 50 are positioned on the base 10B by the socket set 20B and the hand-tool set 30B, the sleeve and the hand tool 50 disposed on the base 10B can be stored at the same time to facilitate convenience in use and prevent the user from forgetting to bring the sleeve or the hand tool 50.

With reference to Figs. 18 to 22, a fourth embodiment of a composite tool holder in accordance with the present invention is substantially the same as the third embodiment except for the following features. The composite tool holder further has an auxiliary first-track 12C, an auxiliary second-track 13C, and an auxiliary socket set 20C. The auxiliary first-track 12C is detachably connected to one of the elongated sides of the substrate 11B by a hooking structure between the substrate 11B and the auxiliary first-track 12C, and is opposite to the first-track 12B. That is, the first-track 12B and the auxiliary first-track 12C are respectively connected to the two elongated sides of the substrate 11B. The auxiliary second-track 13C is formed on the auxiliary first-track 12C. In addition, the structures of the auxiliary first-track 12C and the auxiliary second-track 13C are substantially the same as the first-track 12B and the second-track 13B. Furthermore, the two enclosed-tracks 14B are respectively formed downwardly on the first-track 12B and the auxiliary first-track 12C respectively around the second-track 13B and the auxiliary second-track 13C.

The auxiliary socket set 20C is connected to the auxiliary first-track 12C and the auxiliary second-track 13C, and has a positioning-plate 21C and multiple positioning-blocks 22C. The positioning-plate 21C of the auxiliary socket set 20C is mounted in the auxiliary second-track 13C, and each one of the engaging

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recesses 212C is elongated and is formed in the top surface of the abutting-portion 211C at spaced intervals.

The positioning-blocks 22C are un-rotatably and slidably mounted in the auxiliary first-track 12C and abut the positioning-plate 21C, and each one of the positioning-blocks 22C has an engaging-portion 221C and an inserting-portion 222C. The engaging-portion 221C is rectangular, is mounted in the auxiliary first-track 12C, and abuts the abutting-portion 211C of the positioning-plate 21C. The engaging element 224C of the engaging-portion 221C is an elongated engaging rib, and selectively engages with one of the engaging recesses 212C of the positioning-plate 21C to hold the positioning-block 22C securely on the positioning-plate 21C without sliding relative to the auxiliary first-track 12C.

Furthermore, the length of each one of the supporting-bases 42C is long enough to enclose the first-track 12B, the auxiliary first-track 12C, the second-track 13B, the auxiliary second-track 13C, and the enclosed-tracks 14B.

With reference to Figs. 22 and 23, when the composite tool holder of the fourth embodiment in the present invention is in use, sleeves 80 may be mounted on the positioning-blocks 22B, 22C of the socket set 20B and the auxiliary socket set 20C, since the engaging-portions 221B of the socket set 20B are circular plates, and the sleeves 80 that are mounted around the positioning-blocks 22B of the socket set 20B may be rotated and slid relative to the first-track 12B. Furthermore, since the engaging-portions 221C of the auxiliary socket set 20C are rectangular, the sleeves 80 that are mounted around the positioning-blocks 22C of the auxiliary socket set 20C can only slide relative to the auxiliary first-track 12C without rotating.

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With reference to Fig. 24, a fifth embodiment of a composite tool holder in accordance with the present invention is substantially the same as the fourth embodiment except for the following features. The composite tool holder further has an extending first-track 12D, an extending second-track 13D, and an additional socket set 20D. The extending first-track 12D is connected to and parallel with the first-track 12B by an extending panel 15D, the extending second-track 13D is formed on the extending first-track 12D, and the additional socket set 20D is connected to the extending first-track 12D and the extending second-track 13D. Furthermore, the structures of the extending first-track 12D, the extending second-track 13D, and the additional socket set 20D are respectively and substantially the same as the first-track 12B, the second-track 13B, and the socket set 20B. With the increasing structures of the extending first-track base 12D, the extending second-track 13D, and the additional socket set 20D, the composite tool holder may store more sleeves 80 on the composite tool holder.

By the above technical features, the composite tool holder of the invention allows the user to fix and store the sleeves 80 and the hand tools 50 on the base 10, 10B at the same time by disposing the socket set 20, 20B and the hand-tool set 30, 30B. Therefore, it allows the user to use or store the sleeves 80 and the hand tools 50 at the same time and prevents the user from forgetting to bring the sleeves 80 or the hand tools 50. In addition, the structural strength can be enhanced by the bracket sets 40, 40B disposed on two sides of the base 10, 10B, and the user can carry the composite tool holder by holding the two supporting-plates 424. The invention provides the composite tool holder to store

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the sleeves 80 and the hand tool 50 at the same time, and this is convenient in use. Additionally, the base 10 can be securely mounted on the tool cabinet by a magnetic force that is provided by the magnetic-bases 43 of the bracket set 40. Furthermore, the socket set 20B, the auxiliary socket set 20C, the additional socket set 20D, and the hand-tool set 30B are deposited on the base 10B, and the user can store the sleeves 80 and the hand tools 50 on the base 10, 10B at the same time, and this is convenient in use.

Throughout the specification and the claims that follow, unless the context requires otherwise, the words "comprise" and "include" and variations such as "comprising" and "including" will be understood to imply the inclusion of a stated integer or group of integers, but not the exclusion of any other integer or group of integers.

The reference to any prior art in this specification is not, and should not be taken as, an acknowledgement of any form of suggestion that such prior art forms part of the common general knowledge.

It will be appreciated by those skilled in the art that the invention is not restricted in its use to the particular application described. Neither is the present invention restricted in its preferred embodiment with regard to the particular elements and/or features described or depicted herein. It will be appreciated that the invention is not limited to the embodiment or embodiments disclosed, but is capable of numerous rearrangements, modifications and substitutions without departing from the scope of the invention as set forth and defined by the following claims.

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THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWINGS:

1. A composite tool holder comprising:

a base having

a substrate having

a top surface;

a bottom surface;

two elongated sides;

a length; and

at least one slot formed through the top surface and the bottom surface of the substrate;

a first-track formed on one of the elongated sides of the substrate, and having

a length being equal to the length of the substrate;

a top surface;

a bottom surface;

an upper-opening formed through the top surface of the first-track; and

a sliding-slot formed in the first-track and communicating with the upper-opening;

a socket set connected to the base and having multiple positioning-blocks rotatably mounted in the first-track and moved along the first-track; and

a hand-tool set connected to the base and having

at least one holding-component deposited on the substrate and

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having

a combining-portion mounted through one of the at least one slot of the substrate and having a positioning-protrusion formed on an outer surface of the combining-portion and abutting the substrate; and

a holding-portion integrally formed on a top surface of the combining-portion and mounted above the substrate.

2. The composite tool holder as claimed in claim 1, wherein

the base has a second-track formed on the bottom surface of the first-track, and the second-track has

a top-opening formed through the bottom surface of the first-track and communicating with the sliding-slot; and

an engaging-slot formed in the second-track and communicating with the top-opening; and

the socket set has a positioning-plate disposed in the engaging-slot of the second-track and having

two long opposite sides;

a middle; and

an abutting-portion being arc-shaped, being bent upwardly from the long opposite sides to the middle of the positioning-plate and having a top surface extending into the sliding-slot of the first-track to abut against the positioning-blocks.

3. The composite tool holder as claimed in claim 2, wherein

the base has two enclosed-tracks respectively formed on the bottom surfaces of the substrate and the first-track, the enclosed-track that is formed on

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the bottom surface of the substrate communicates with the at least one slot, and the enclosed-track that is formed on the bottom surface of the first-track is mounted around the second-track; and

each one of the enclosed-tracks has

a length being equal to the length of the substrate and the length of the first-track;

a bottom surface;

a lower-opening formed through the bottom surface of the enclosed-track; and

an enclosed-slot formed in the enclosed-track and communicating with the lower-opening.

4. The composite tool holder as claimed in claim 3, wherein

the composite tool holder has a bracket set detachably connected to the base beside the socket set; and

the bracket set has

multiple fixing-plates disposed in one of the enclosed-tracks and near an end of the substrate or an end of the first-track, and each one of the fixing-plates having

a fixing-hole formed through the fixing-plate and communicating with the lower-opening of a corresponding enclosed-track; and

a fixing-component connected to the fixing-platevia the lower-opening; and

two supporting-bases respectively connected to two sides of the base to enclose the first-track, the second-track, and the enclosed-tracks.

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5. The composite tool holder as claimed in claim 4, wherein

each one of the supporting-bases has

an enclosed-plate disposed longitudinally and abutting one of the sides of the base;

a supporting-plate transversally formed on a top of the enclosed-plate and aligning to the substrate;

an extending-plate transversally formed on and protruding from the enclosed-plate under the base, being opposite to the supporting-plate, and having two through-holes formed through the extending-plate at a spaced interval to enable the fixing-components to respectively mount through the through-holes and respectively connect to the fixing-holes of the fixing-plates that are mounted at a same side of the base; and

a connecting-track formed downwardly on a bottom of the extending-plate away from the enclosed-plate; and

the bracket set has two magnetic-bases respectively connected to the supporting-bases under the base, and each one of the magnetic-bases has

a combining-frame securely mounted in the connecting-track of one of the supporting-bases;

a fastening component mounted through the combining-frame and the connecting-track to connect the combining-frame with the connecting-track; and

at least one magnetic-block securely mounted on a bottom of the combining-frame opposite to the connecting-track.

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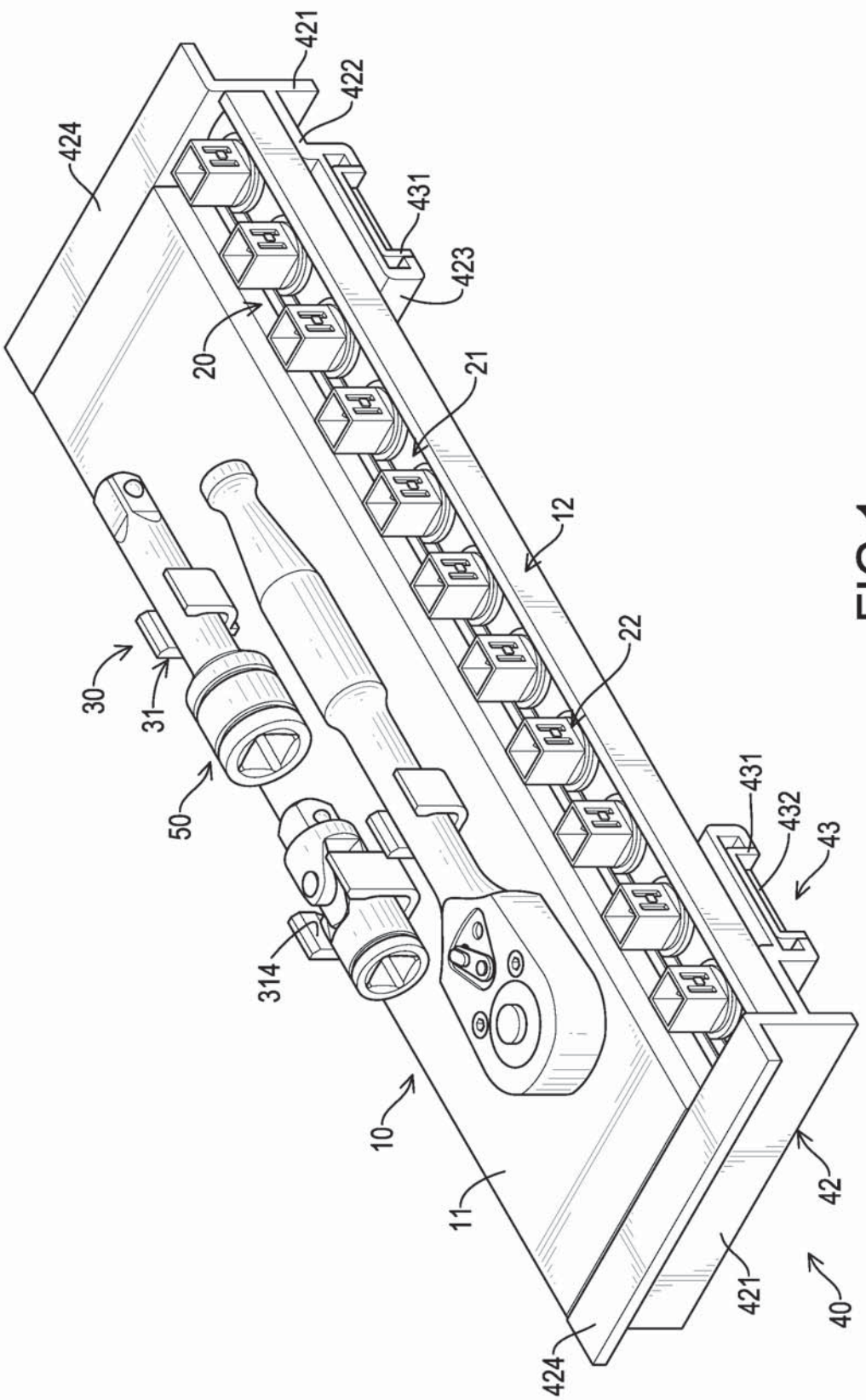

FIG.1

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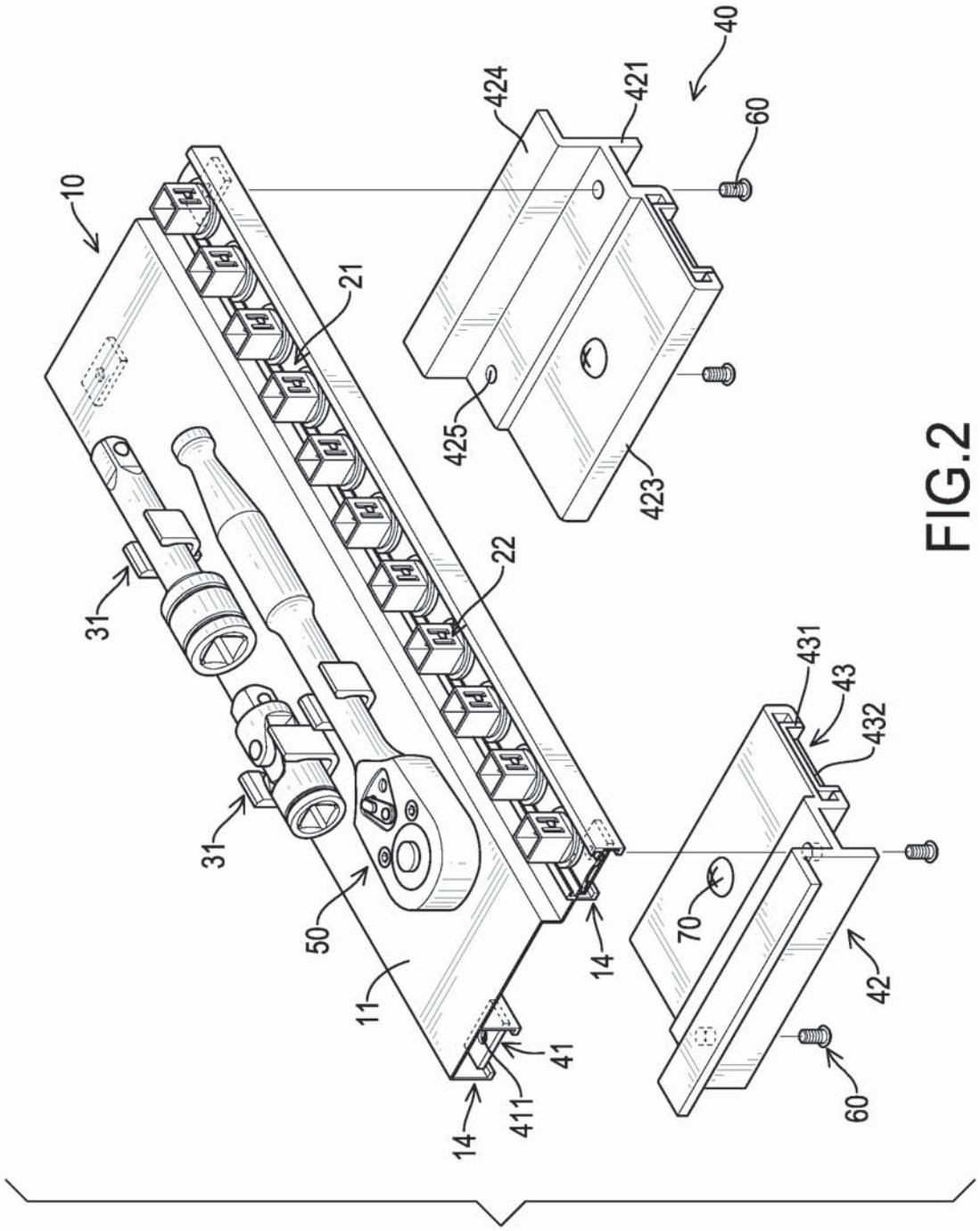

FIG.2

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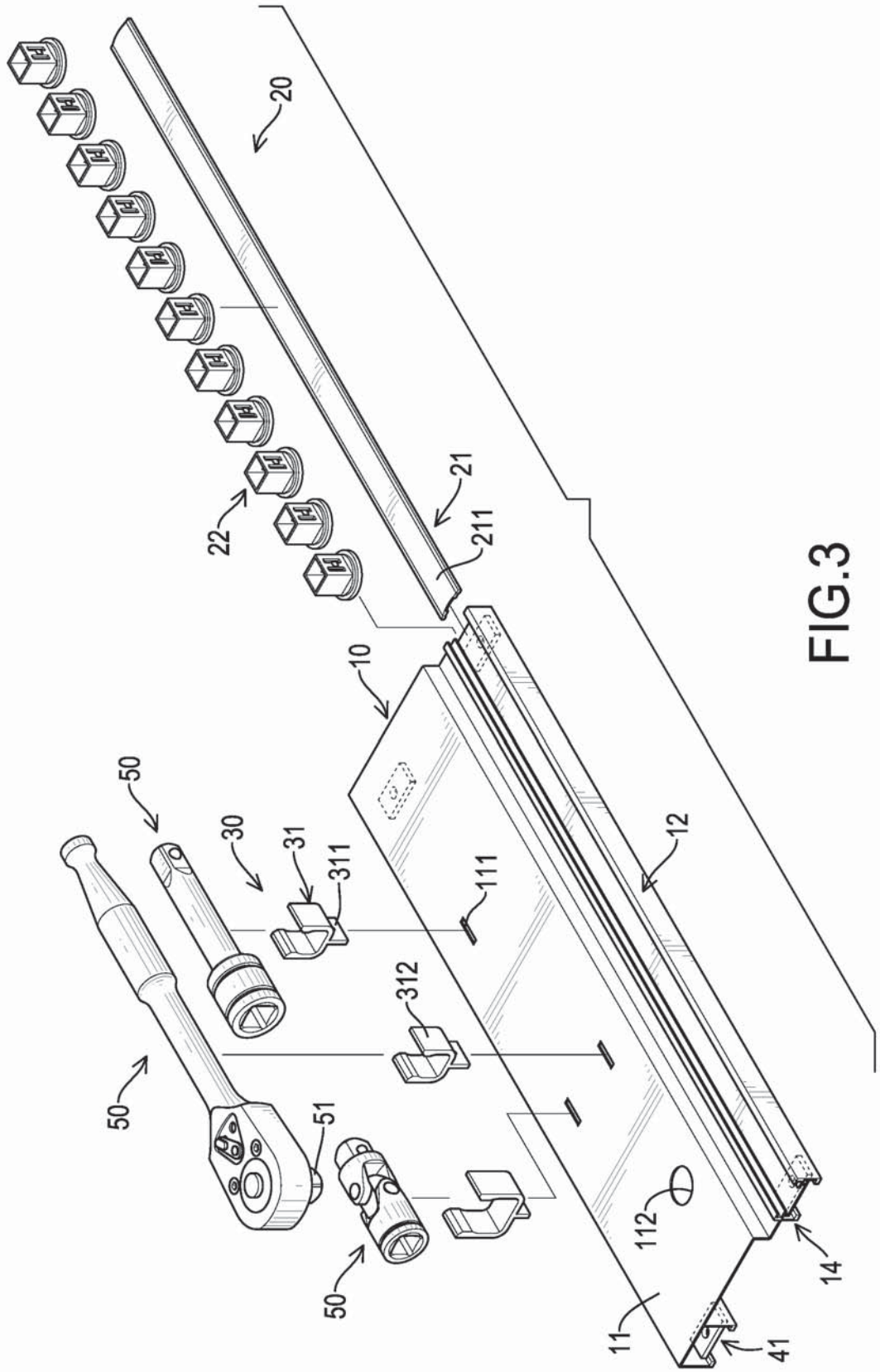

FIG.3

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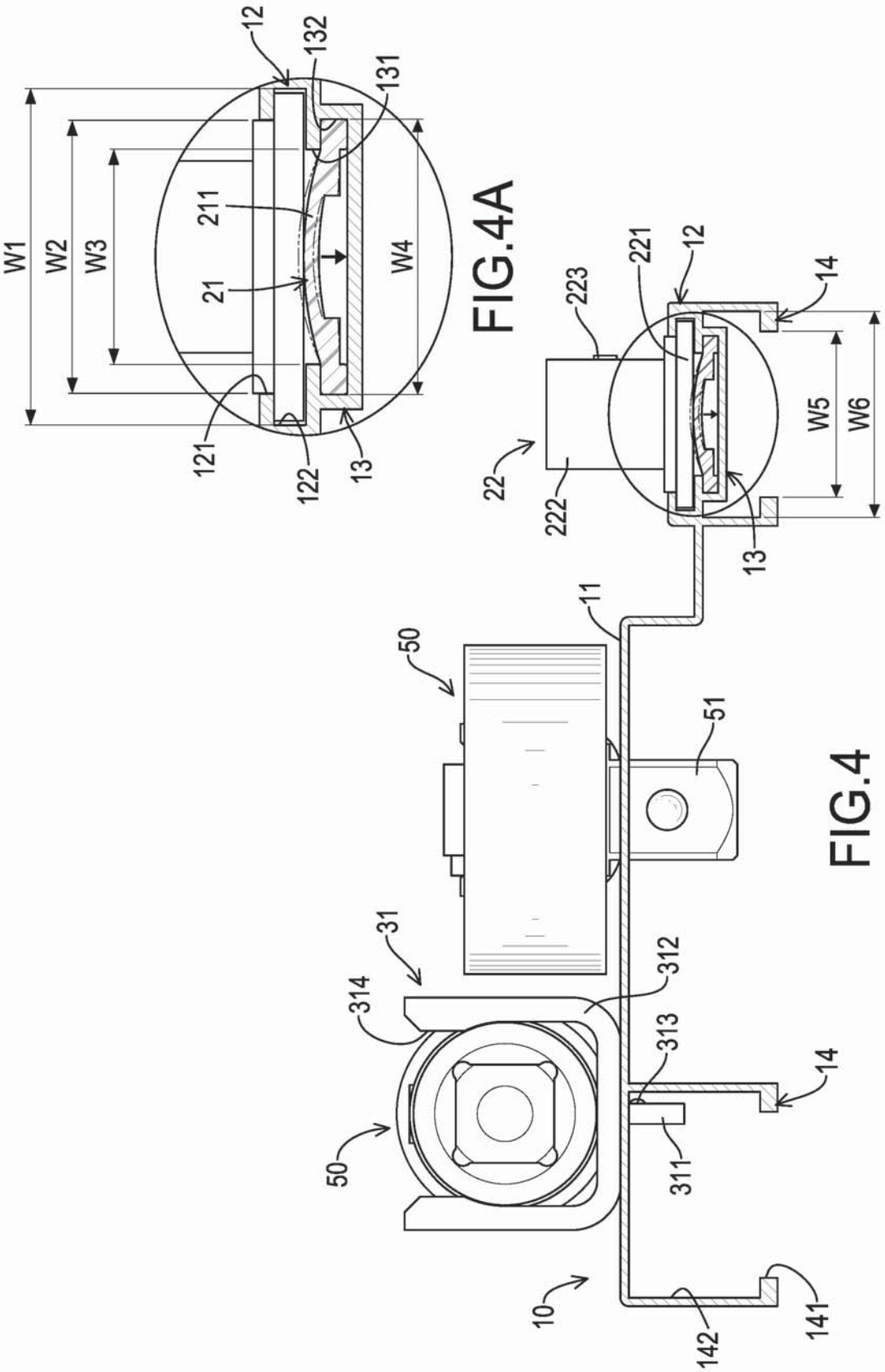

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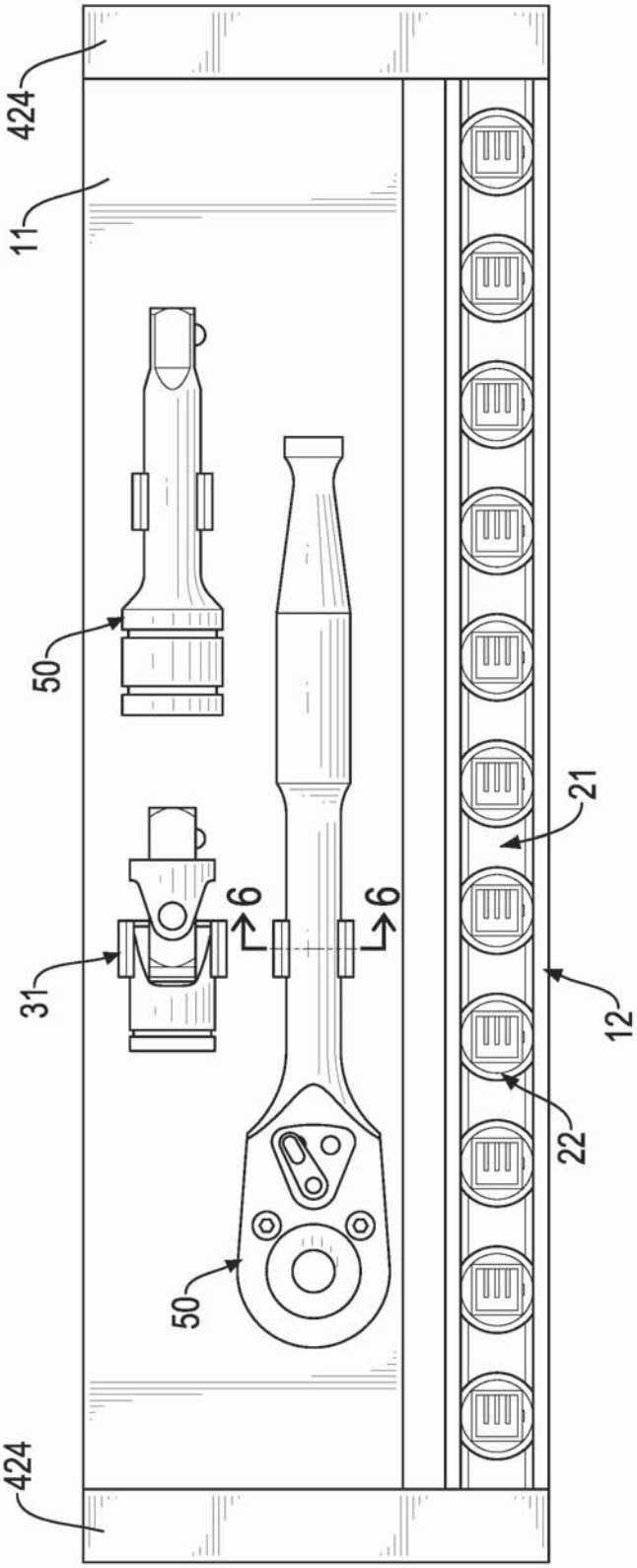

FIG.5

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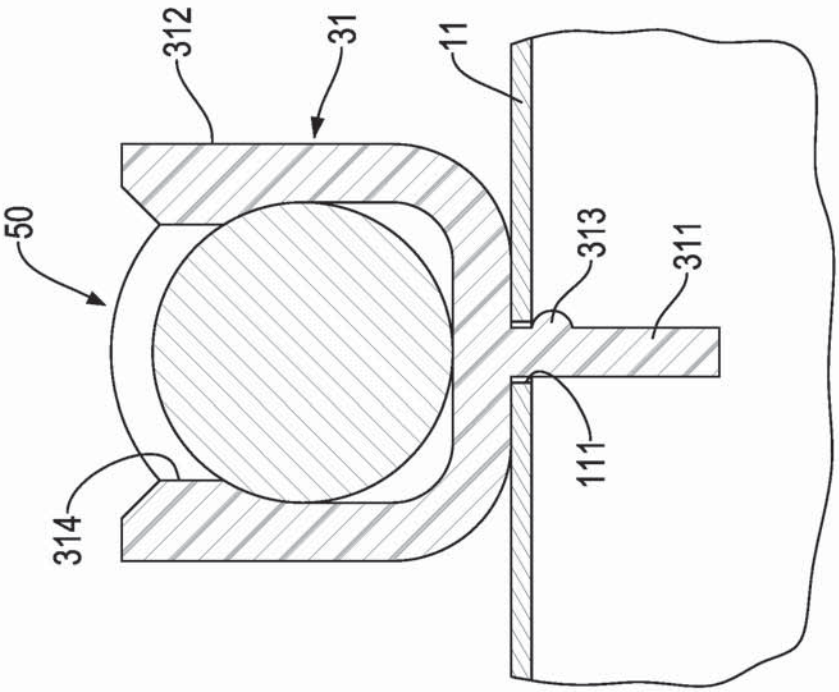

FIG.6

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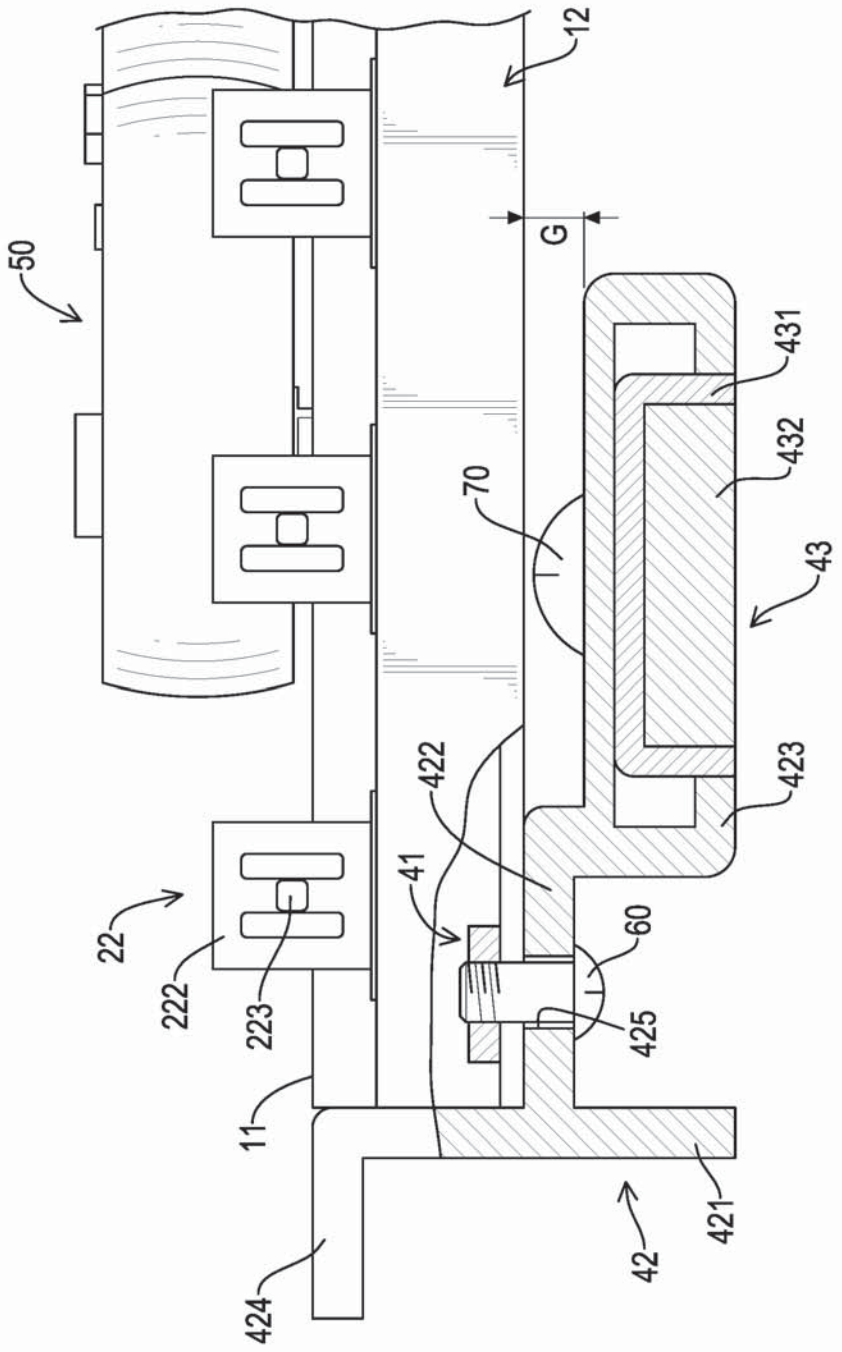

FIG.7

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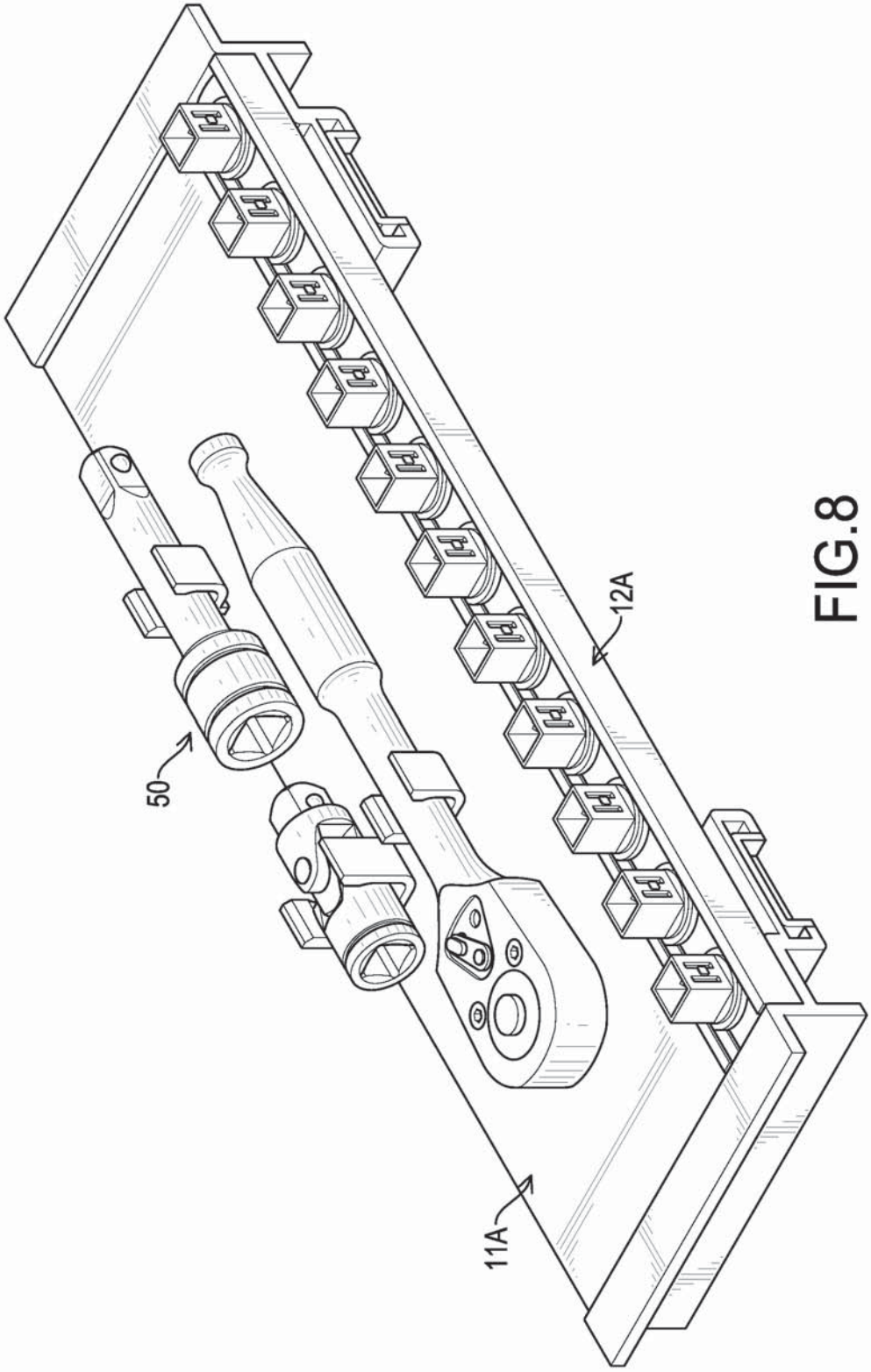

FIG.8

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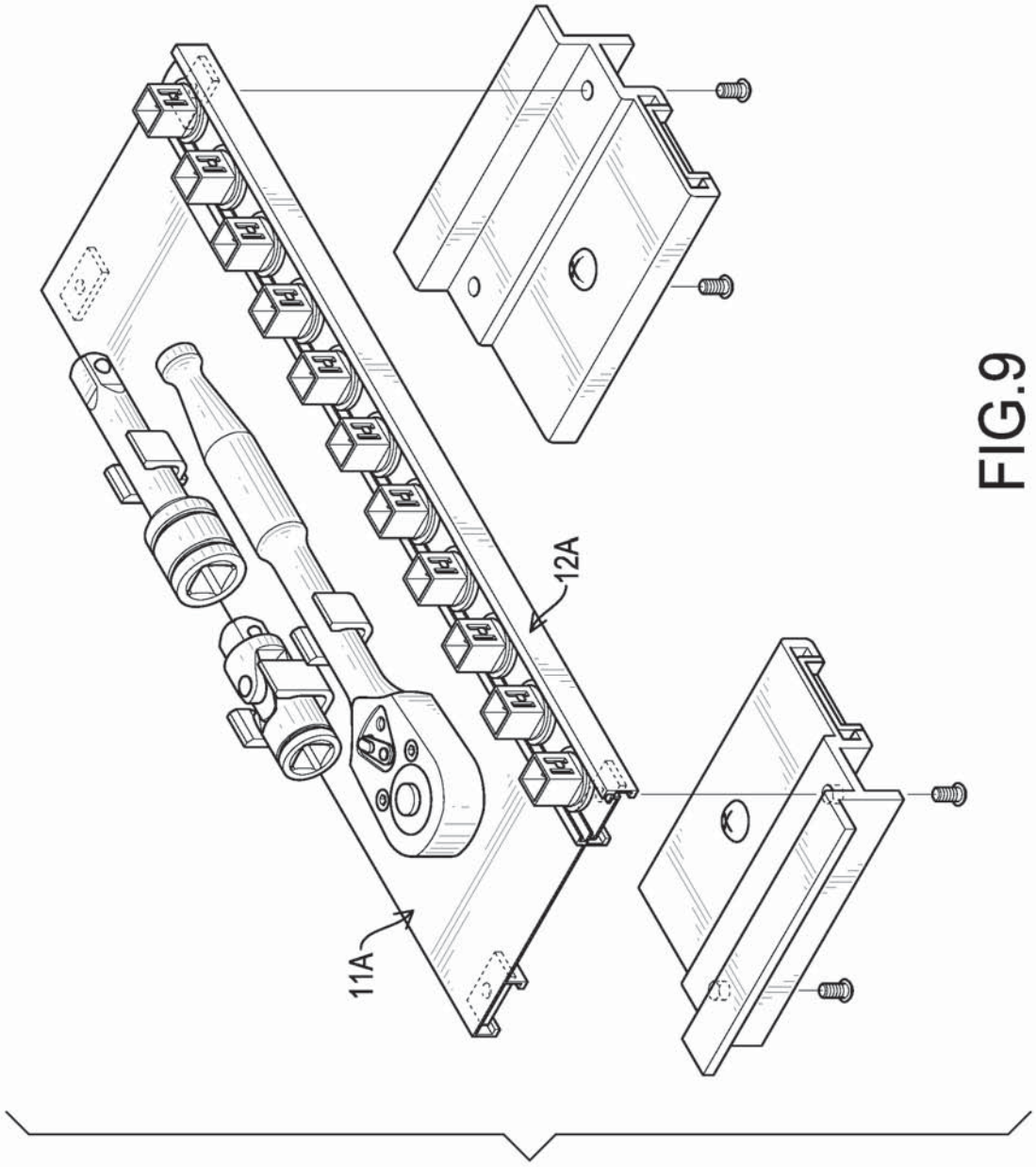

FIG.9

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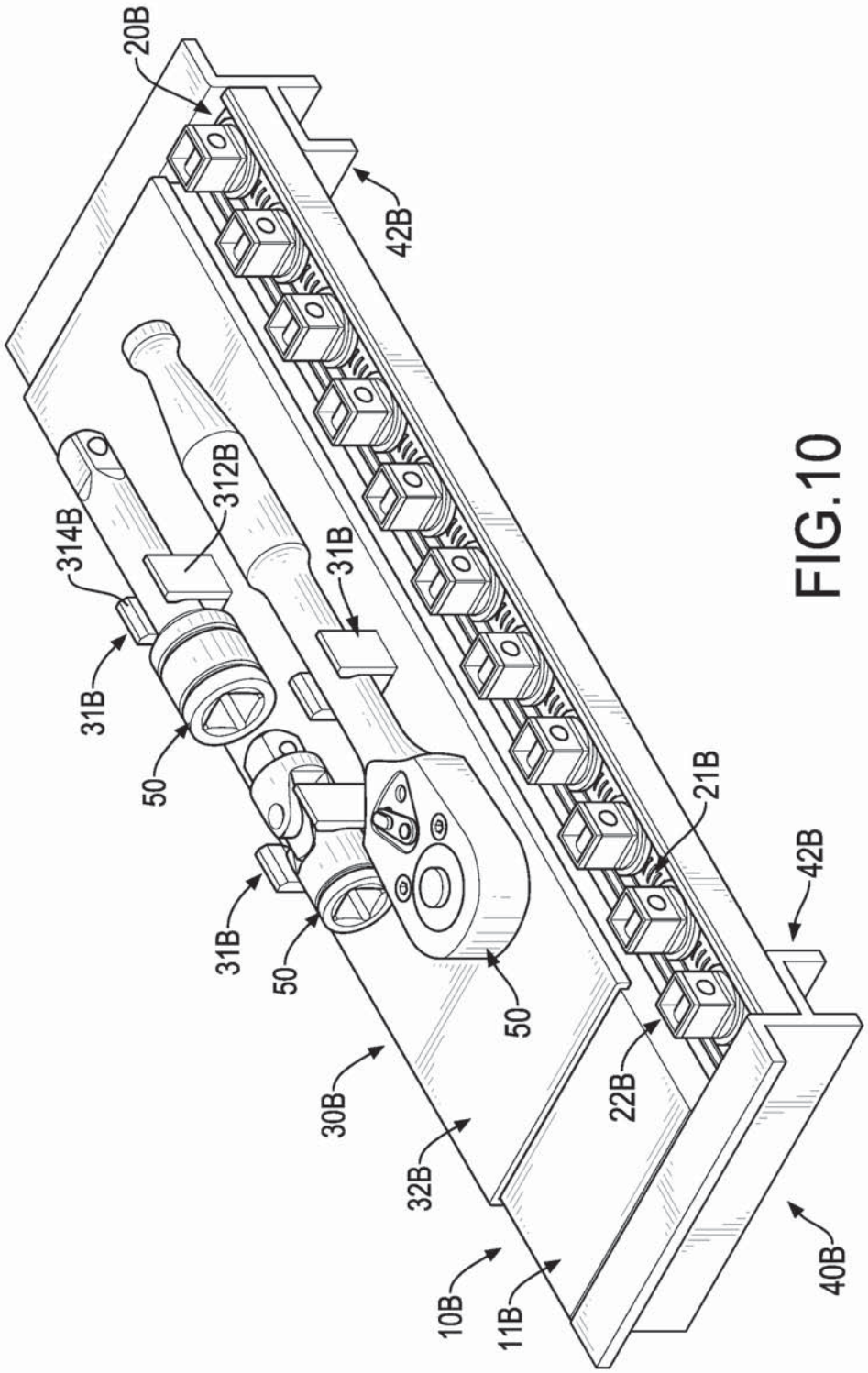

FIG.10

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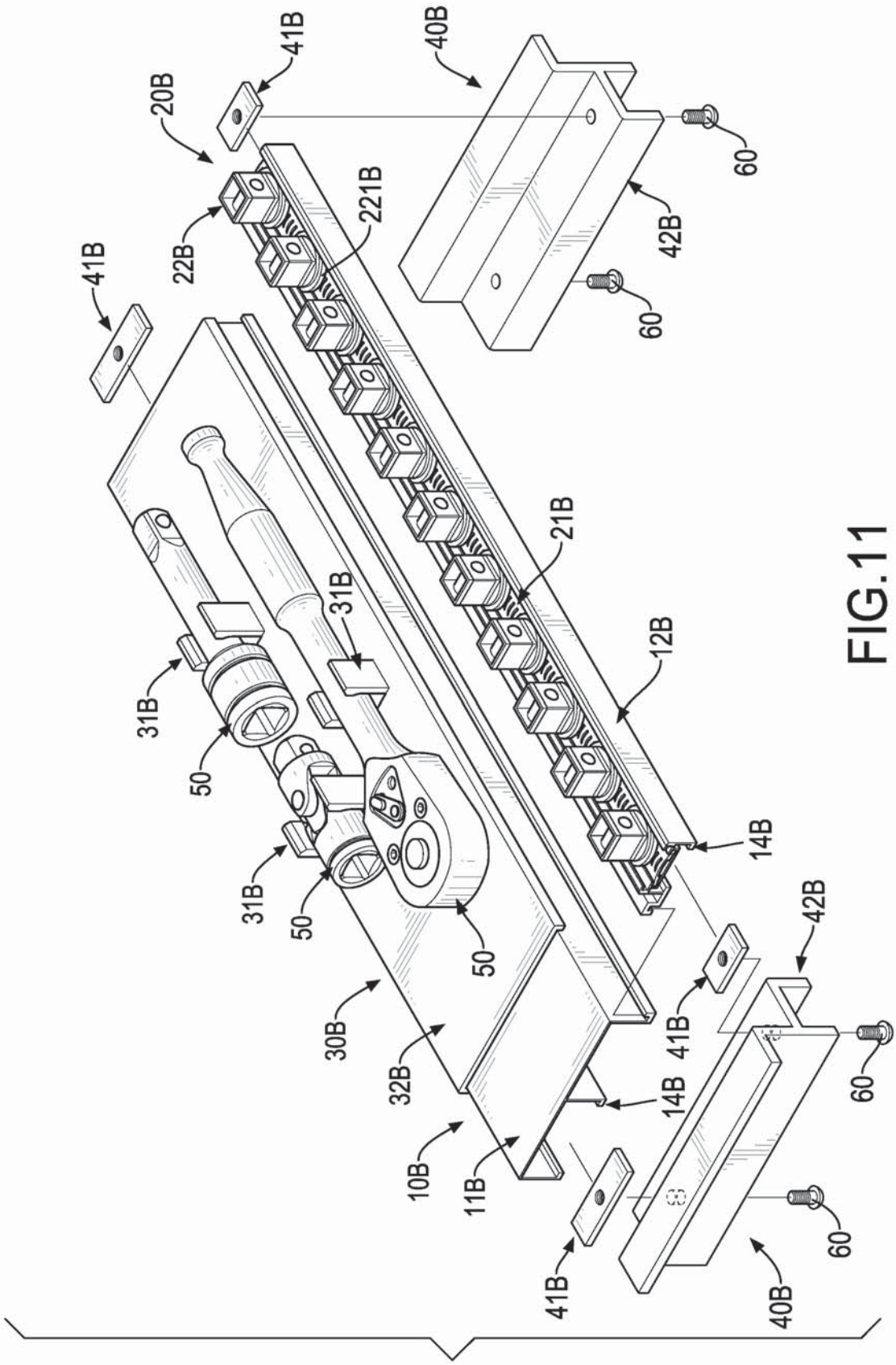

FIG.11

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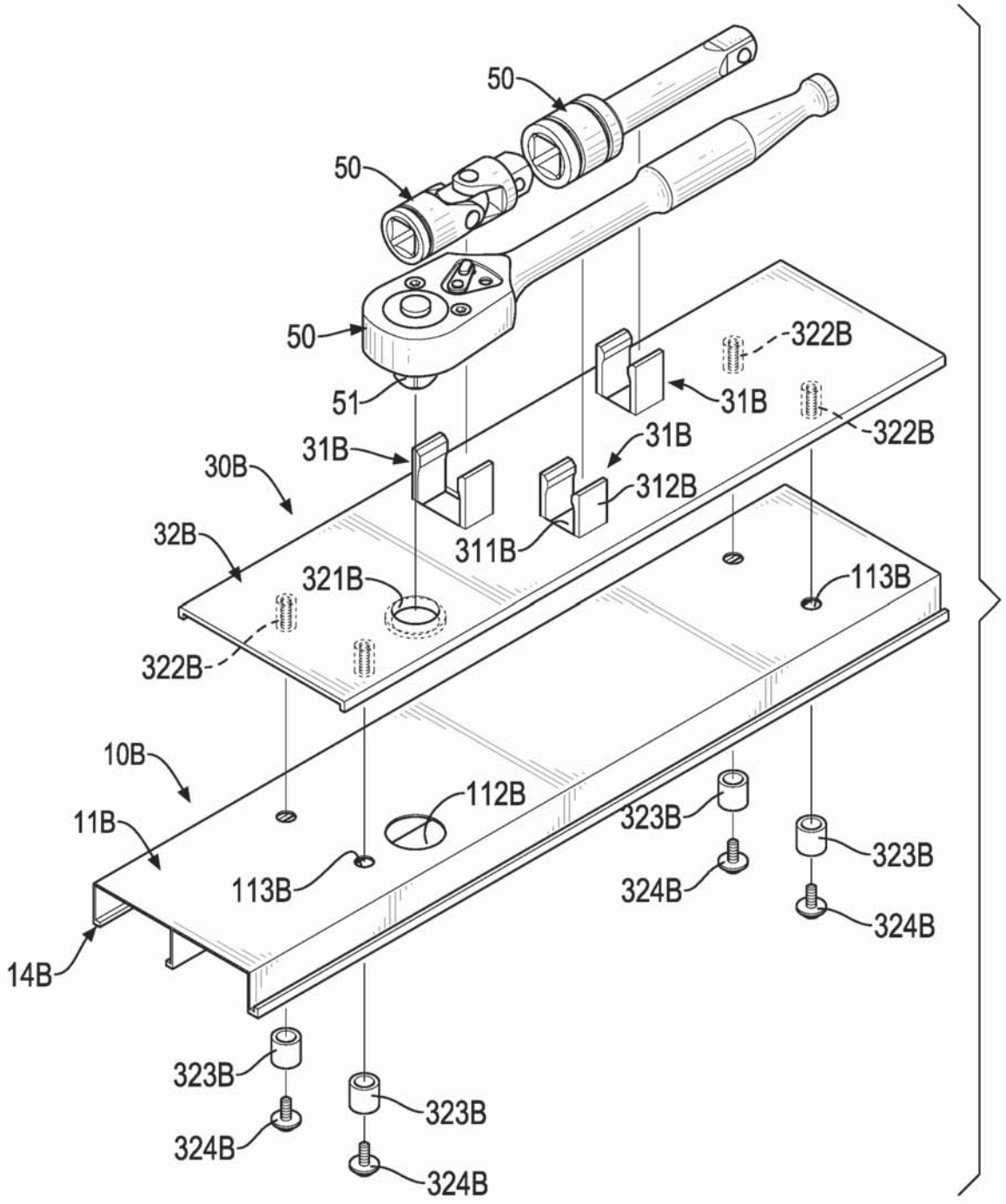

FIG.12

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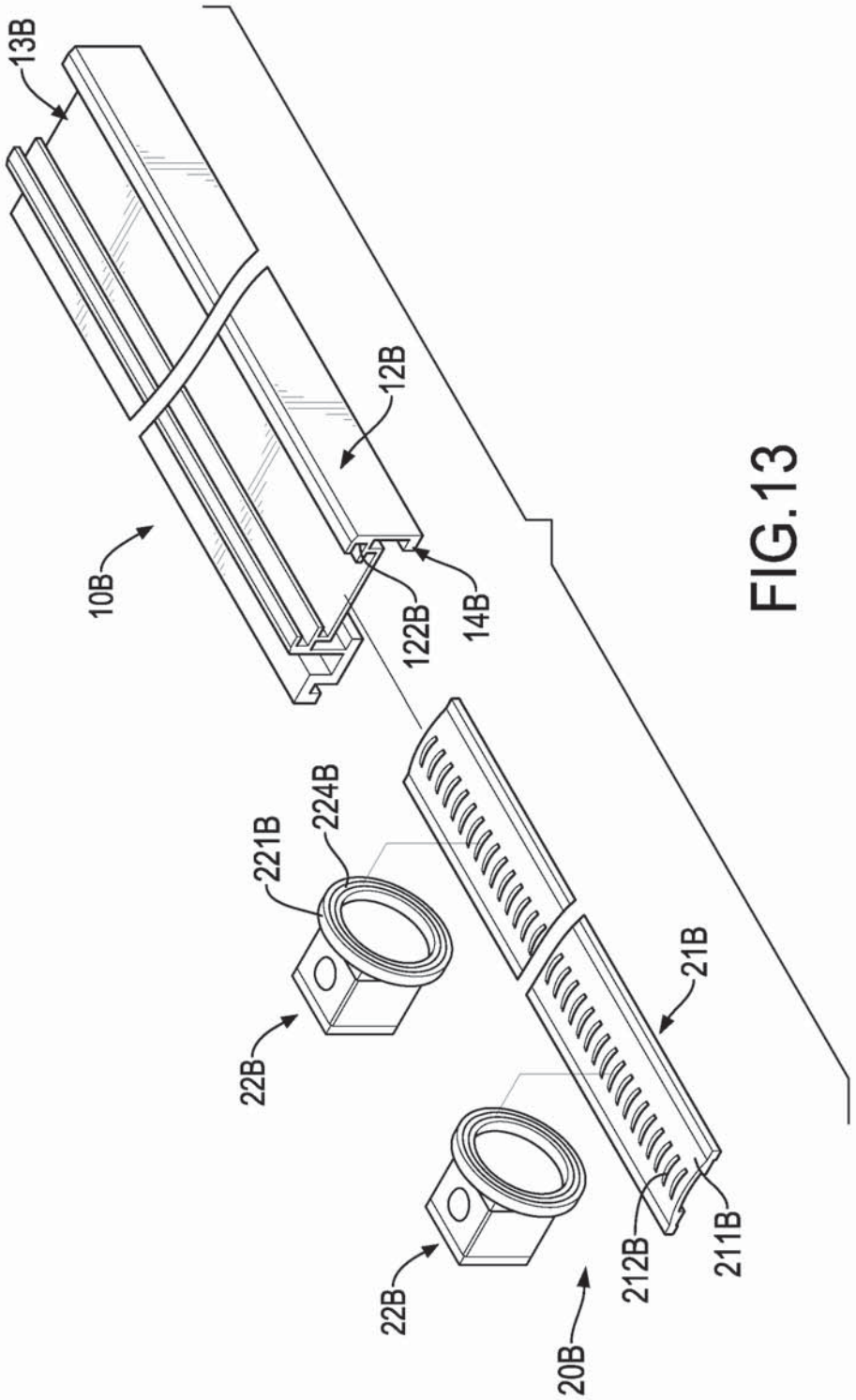

FIG.13

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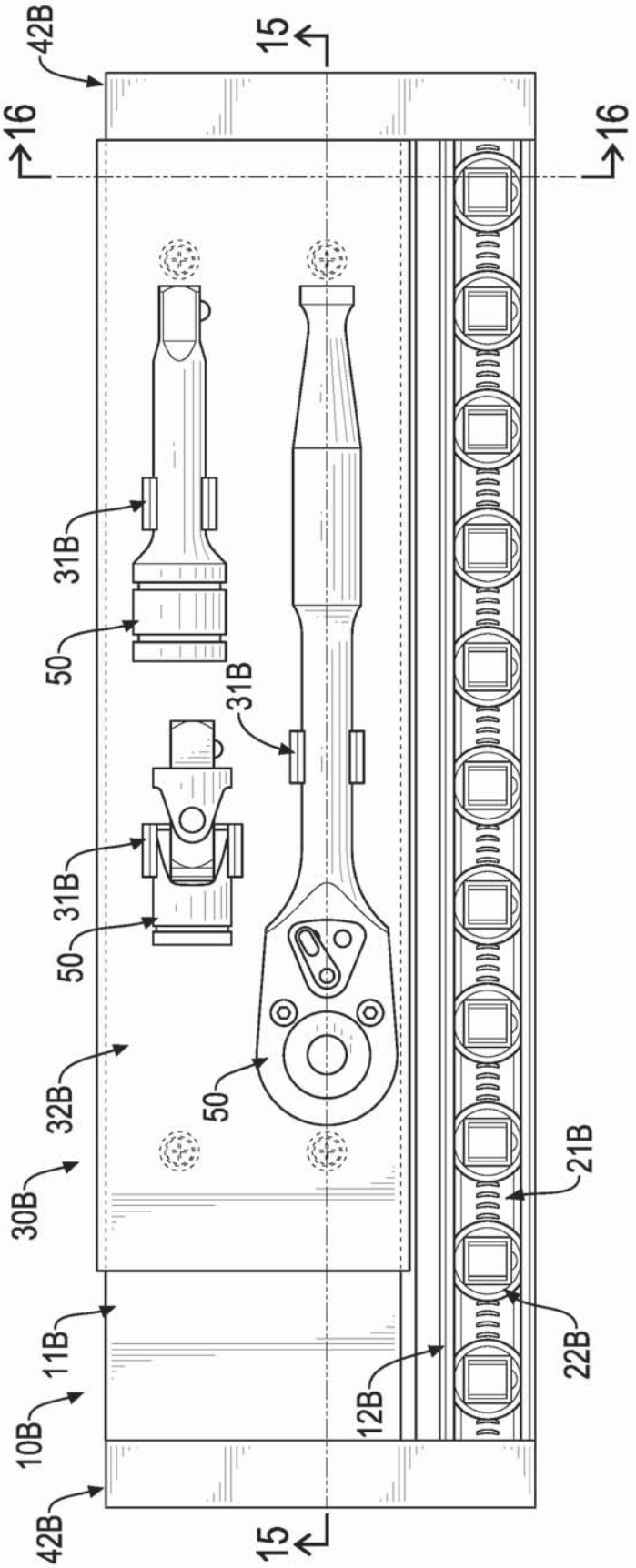

FIG.14

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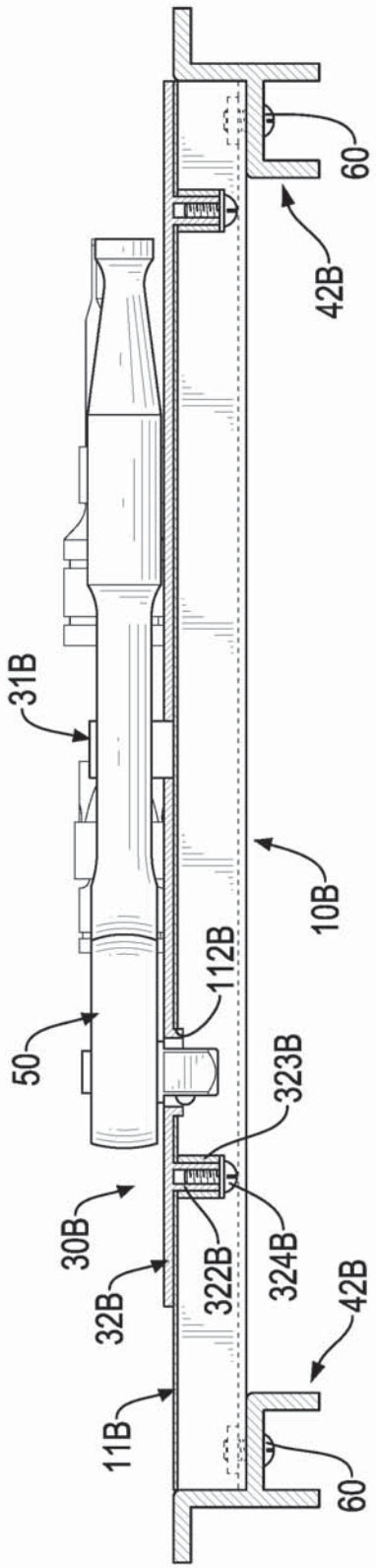

FIG.15

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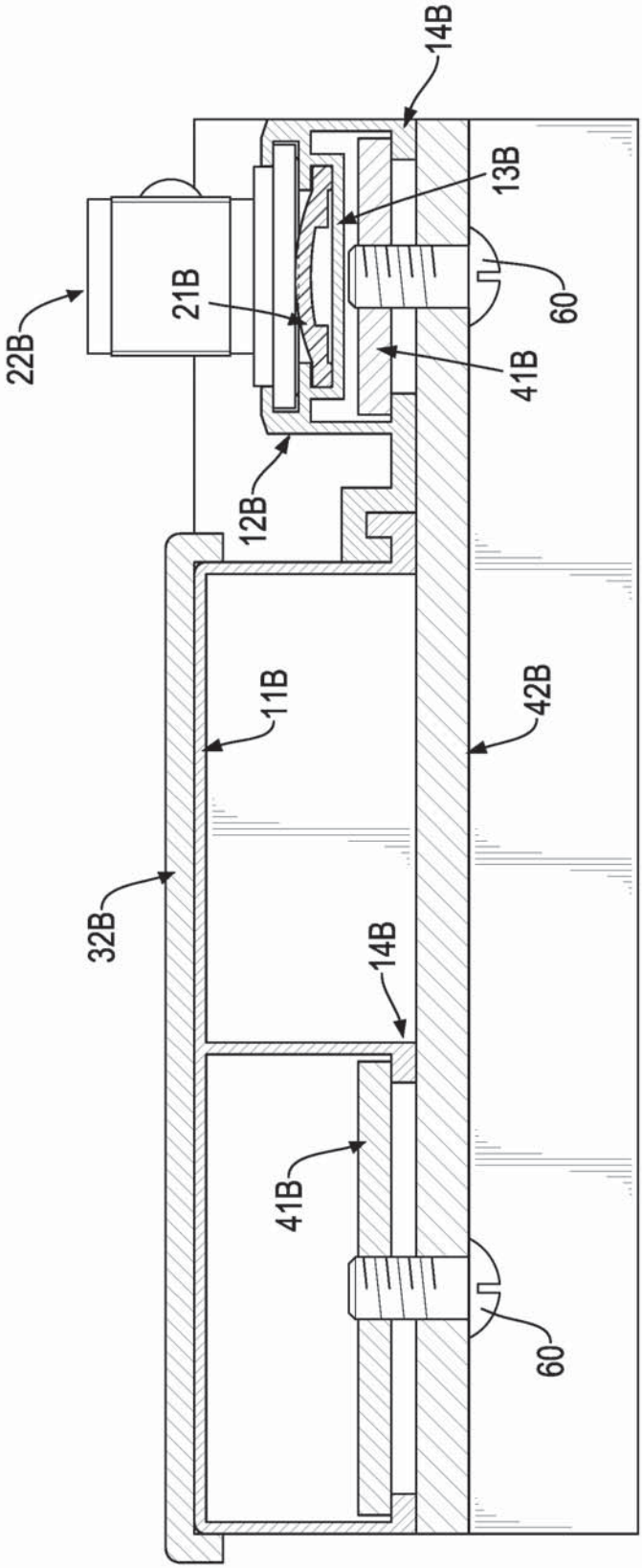

FIG.16

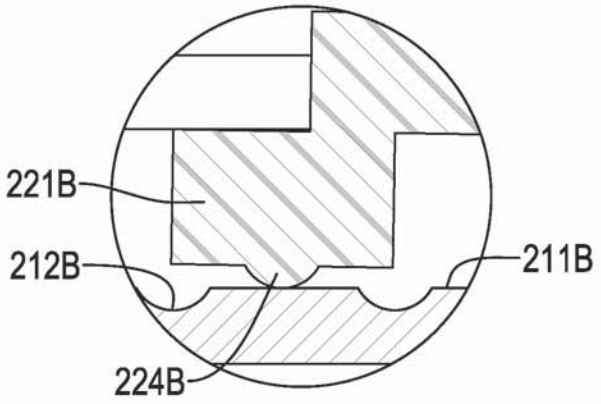

FIG.17A

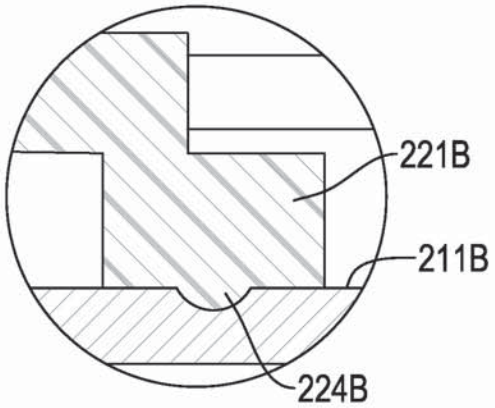

FIG.17B

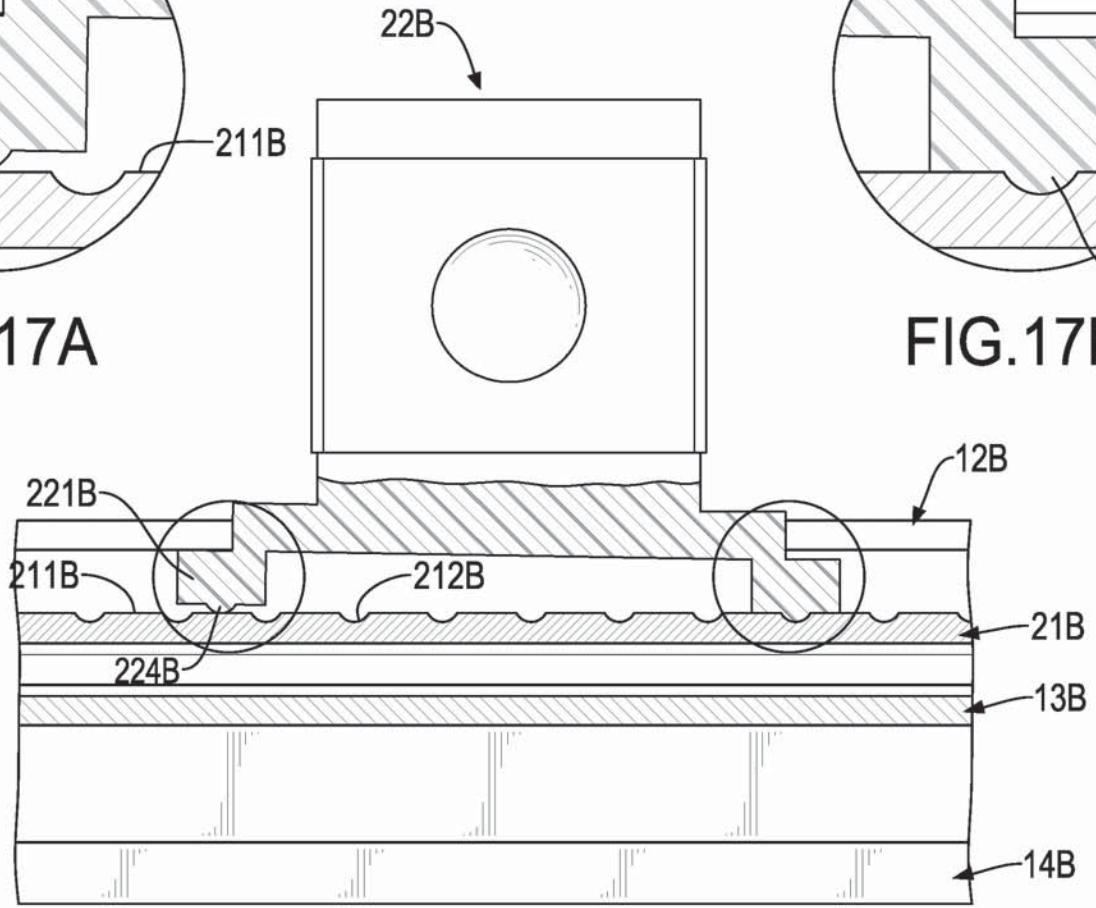

FIG.17

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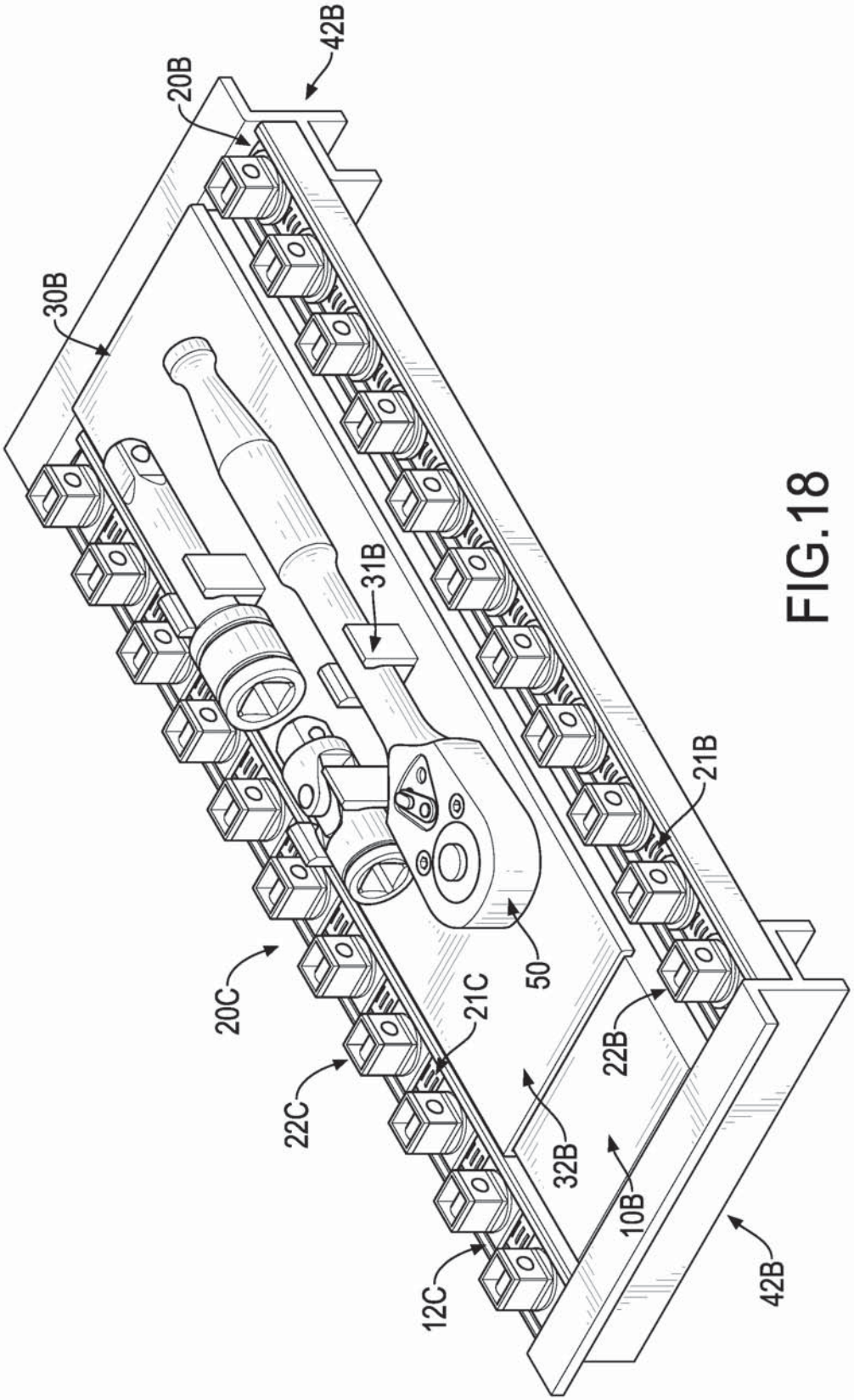

FIG.18

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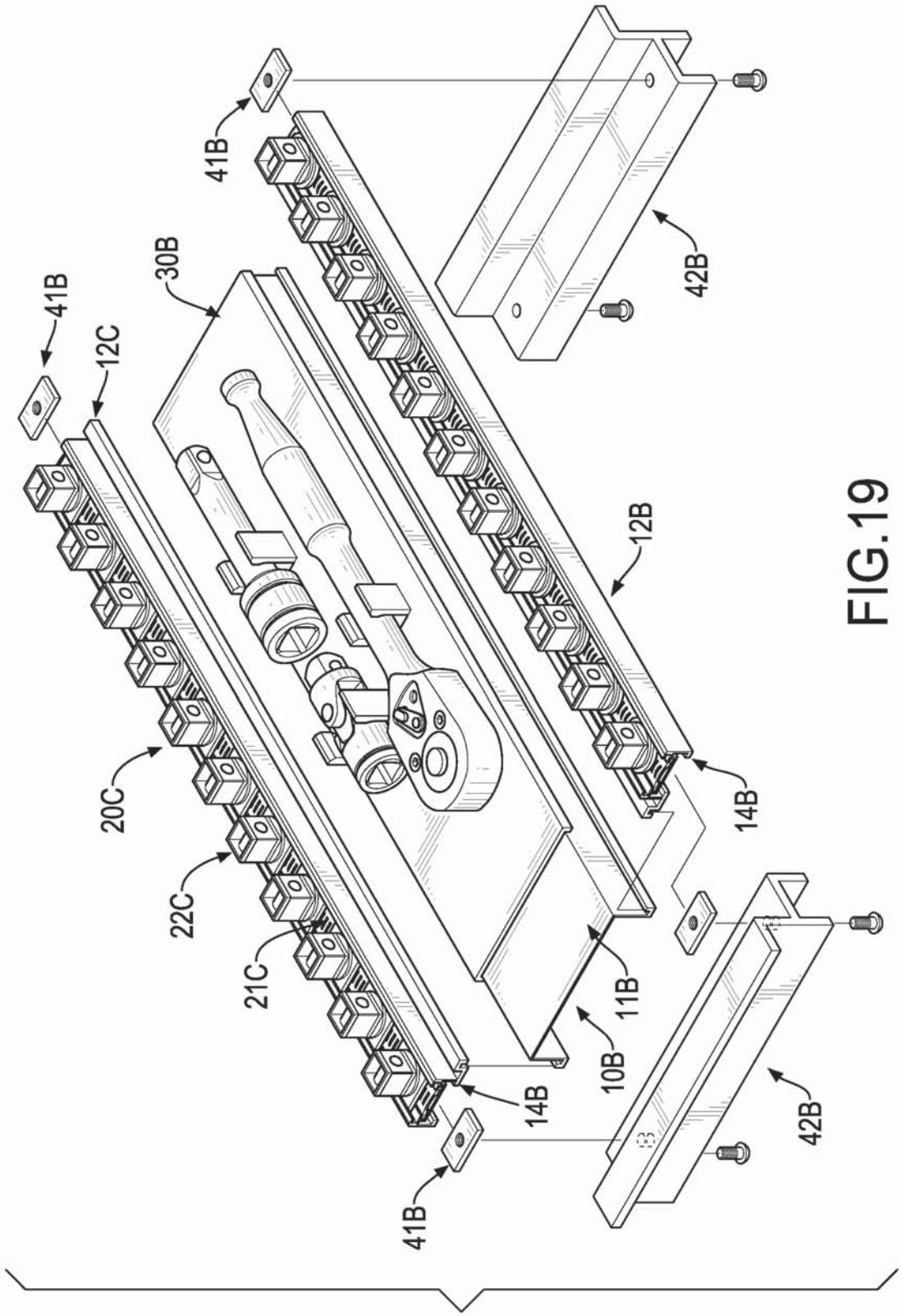

FIG.19

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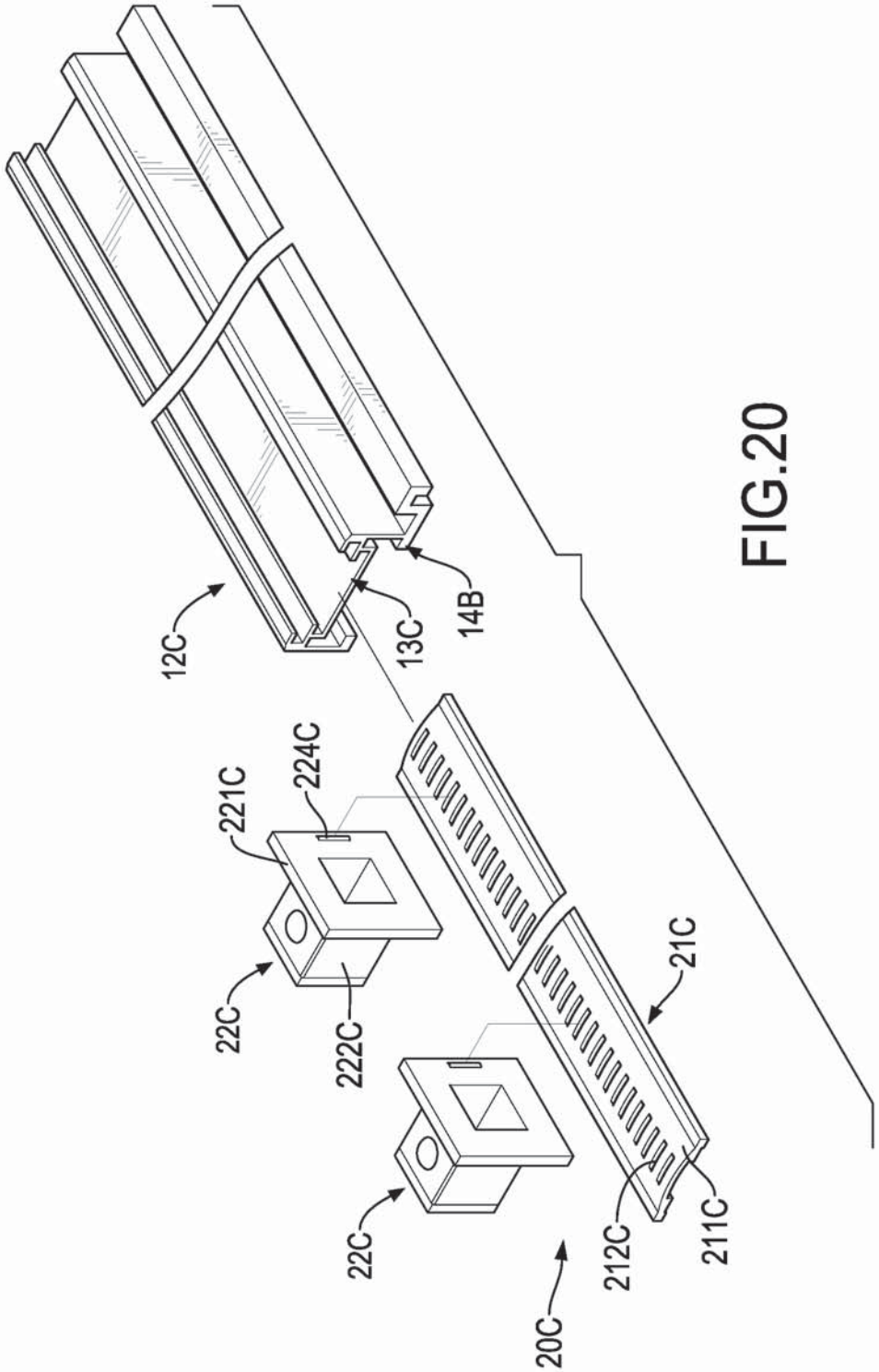

FIG.20

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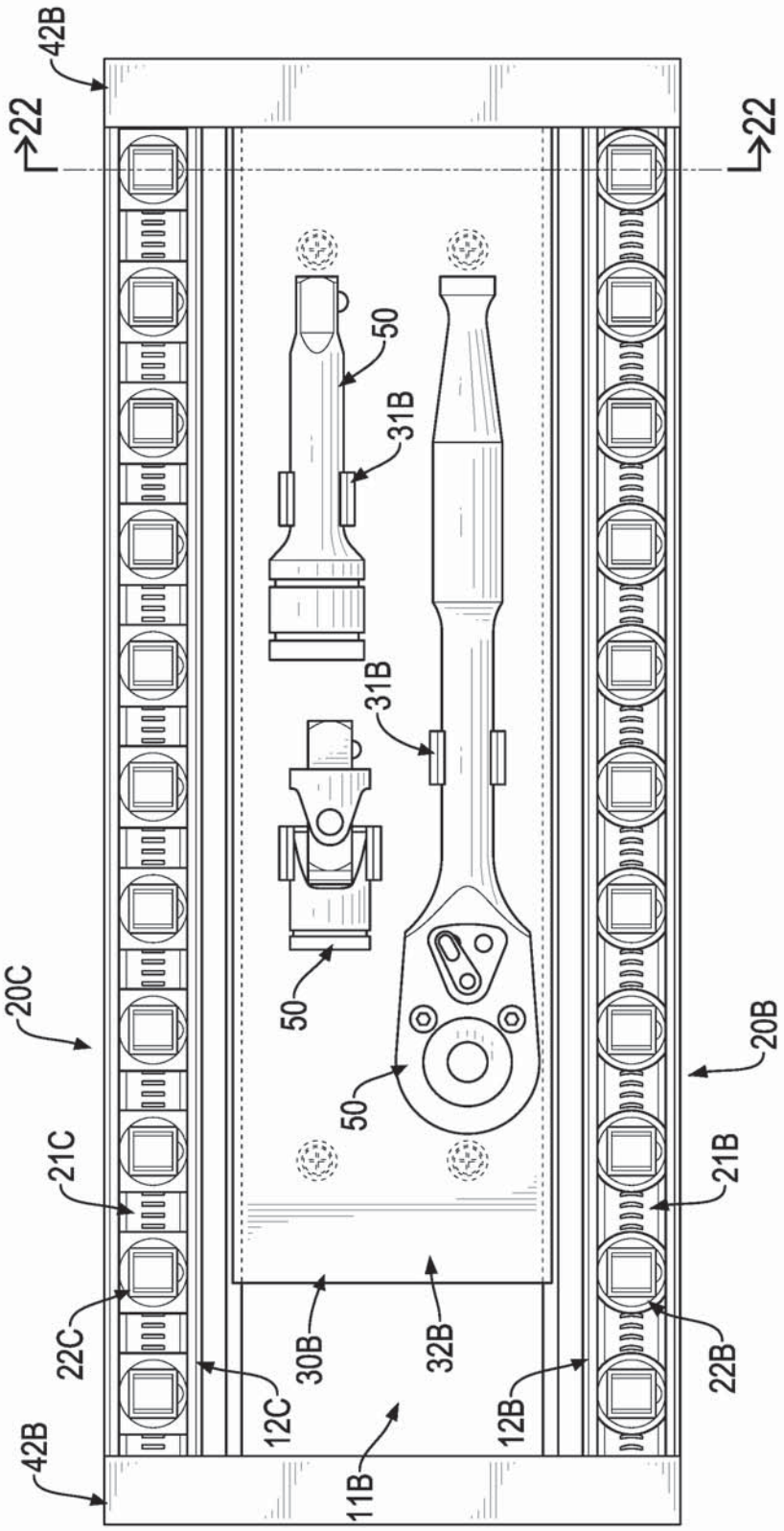

FIG.21

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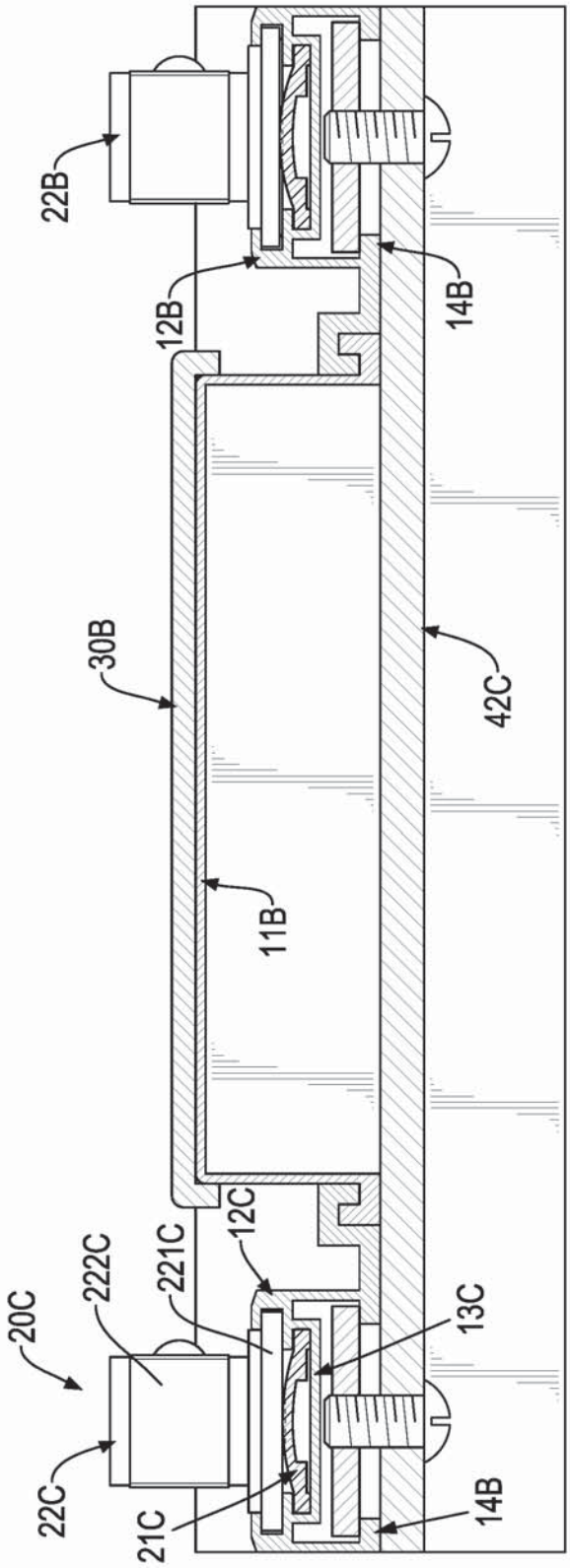

FIG.22

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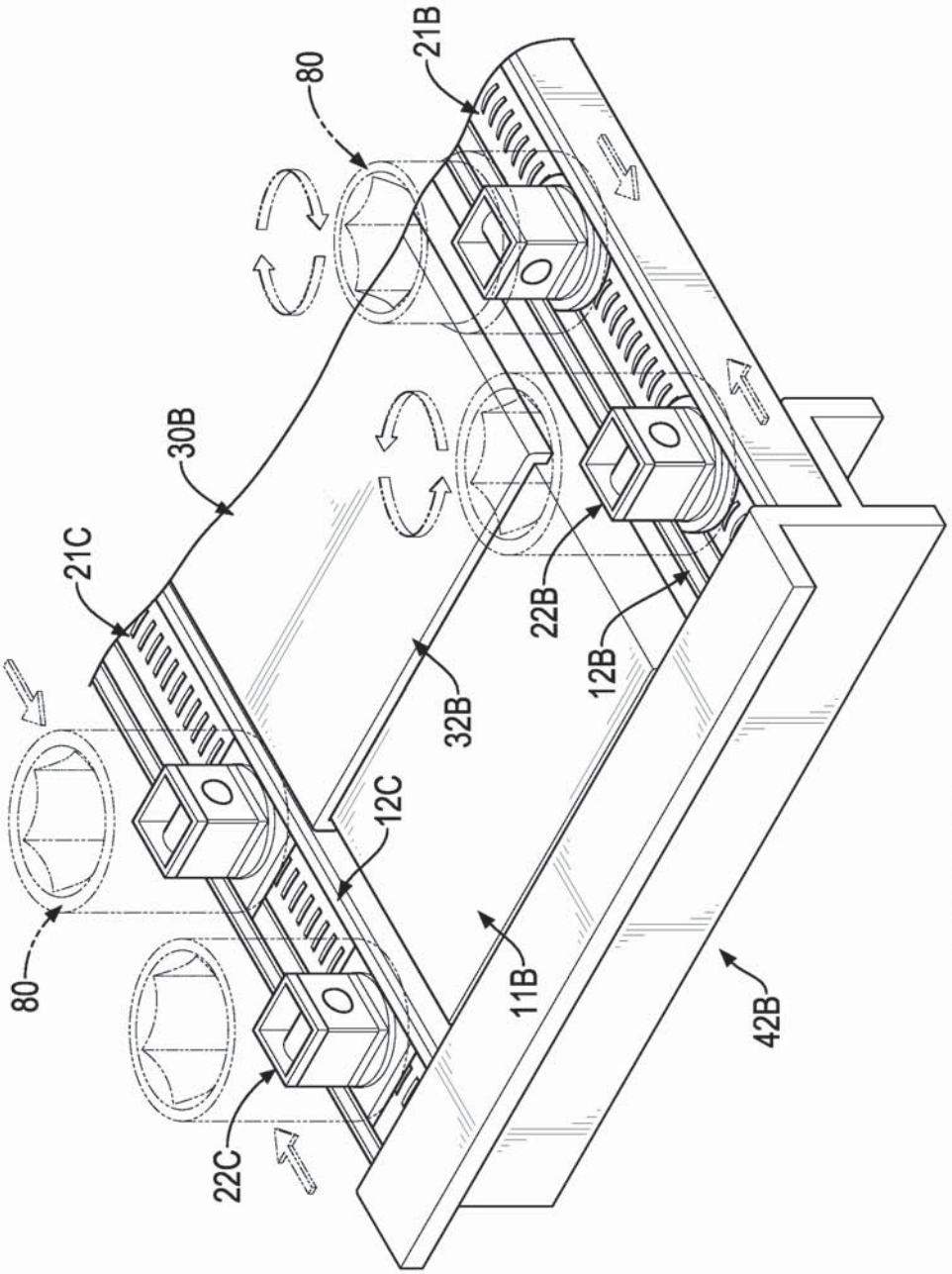

FIG.23

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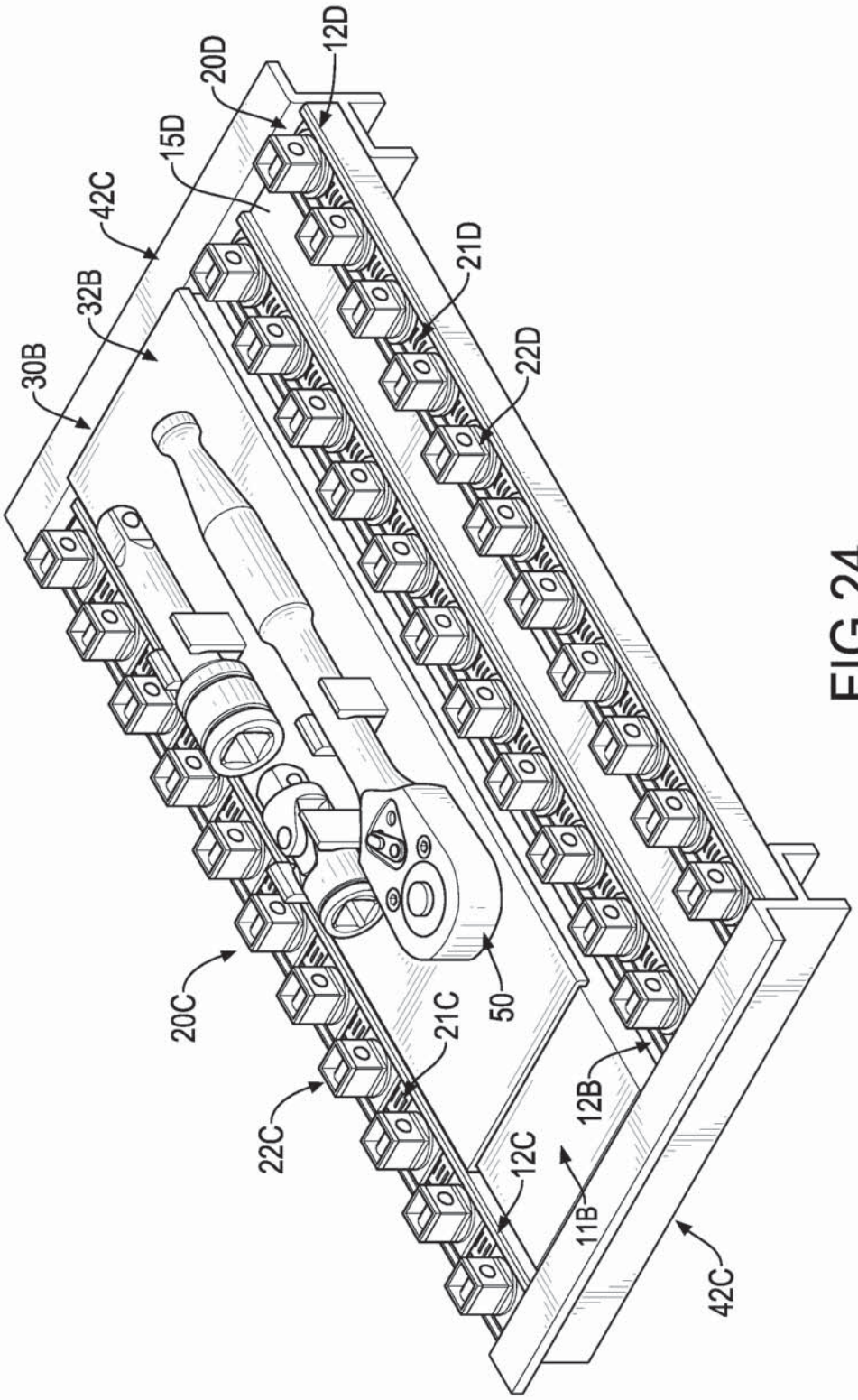

FIG.24