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(54) **MID-DECK HINGED TREADMILL DECK**

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(57) **ABSTRACT**

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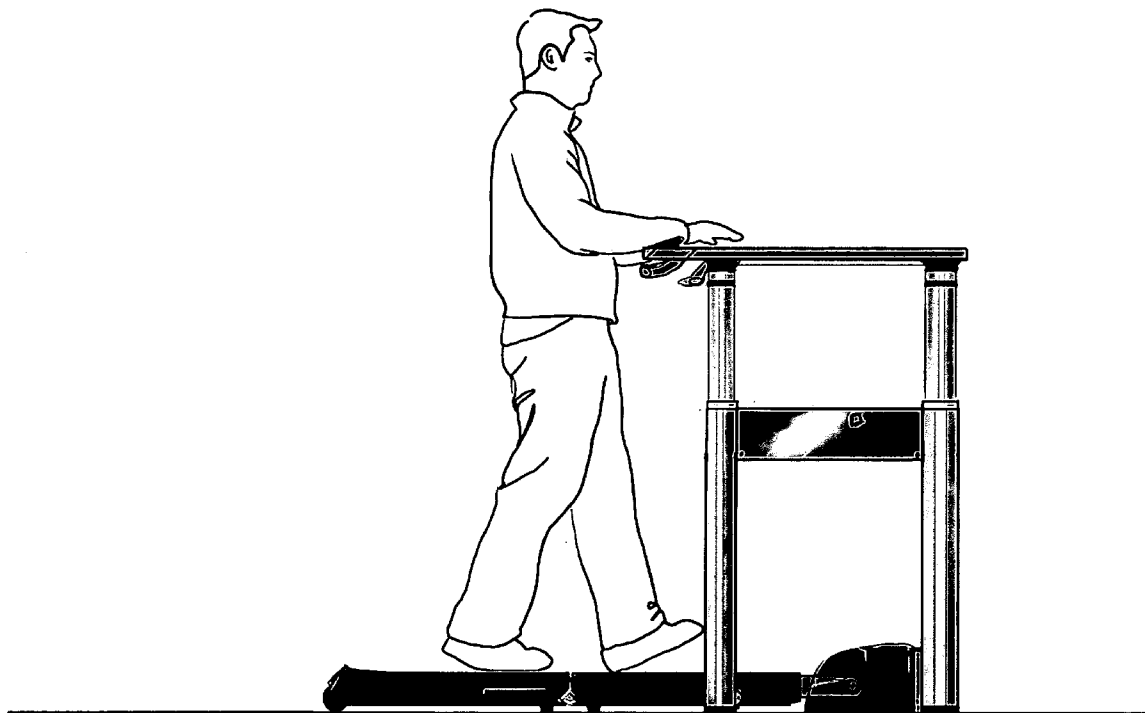
This Mid-deck Hinged Treadmill Deck allows the deck of a treadmill to fold into small spaces which is useful to any use where space is limited. A few examples of such uses or applications are treadmills that fold under desk tops or treadmills that fold into furniture or treadmills that fold out of wall fixtures. The smaller volume required to box, ship and store a Mid-deck Hinged Treadmill also lowers freight and storage costs simply because more units will fit into a shipping container or warehouse space. To function properly the Mid-deck Hinged Treadmill Deck requires a rear mechanism that loosens the rear roller when it is being folded or unfolded and then locks or tightens the rear treadmill roller when it is used.

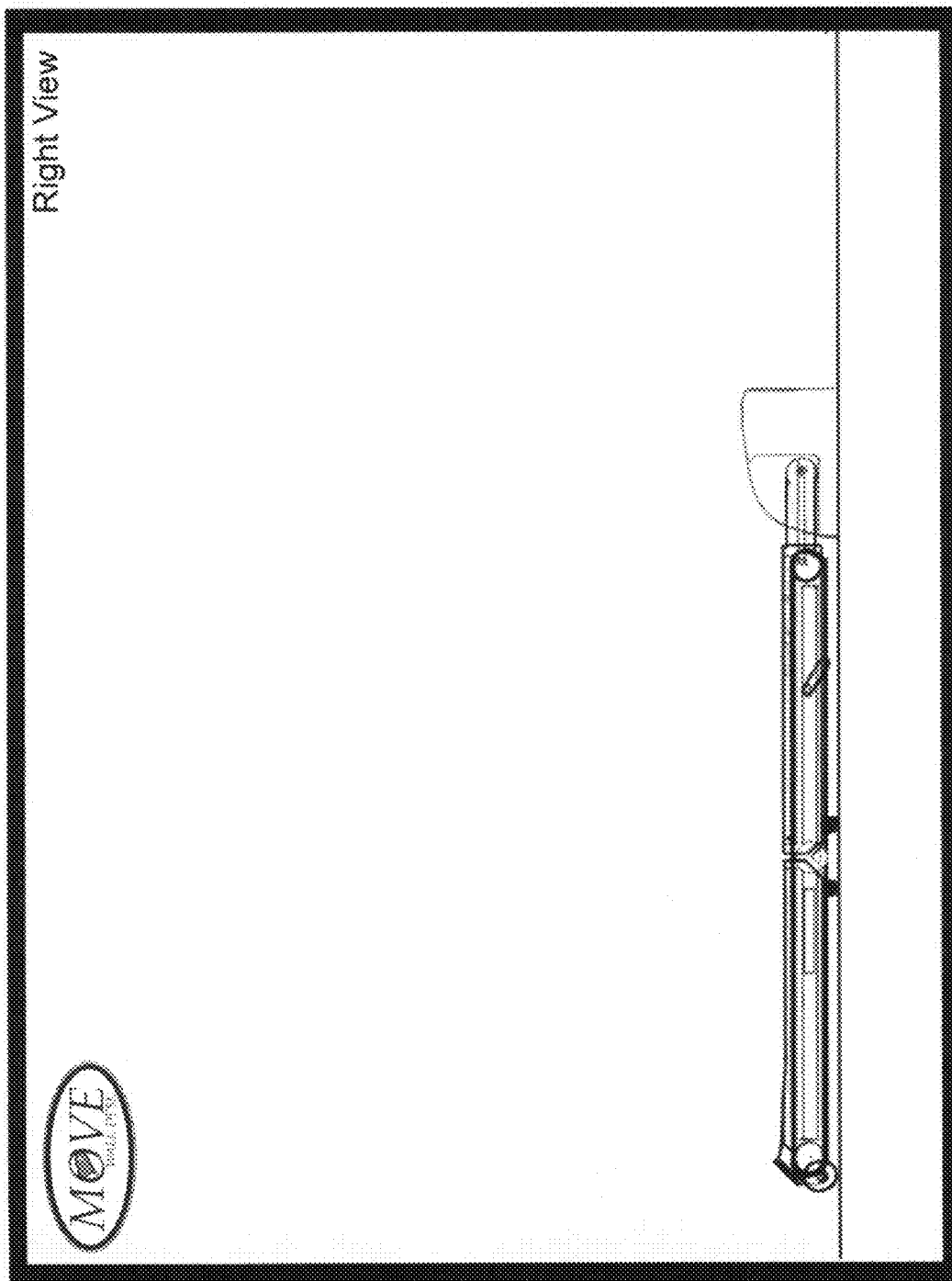
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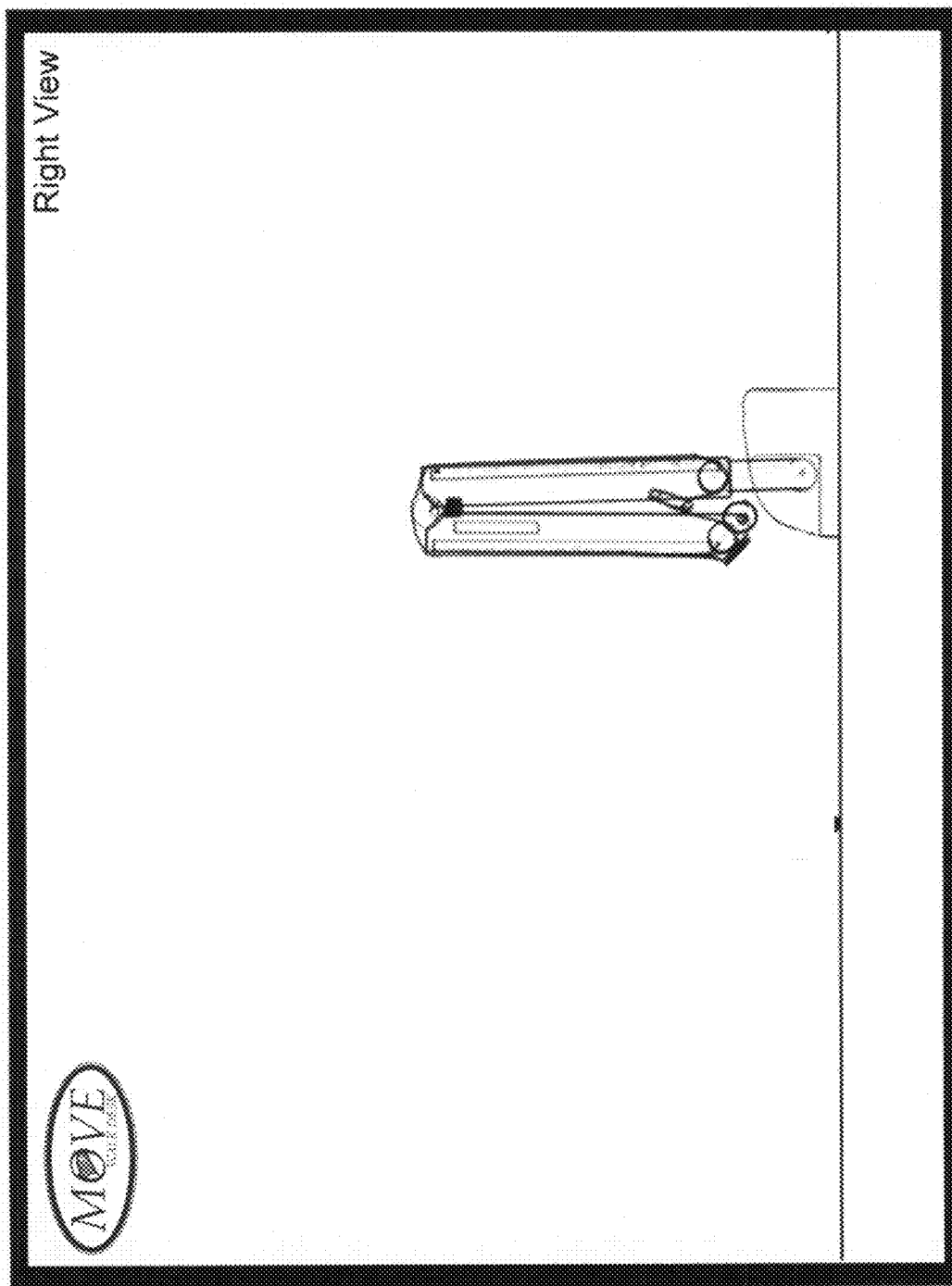
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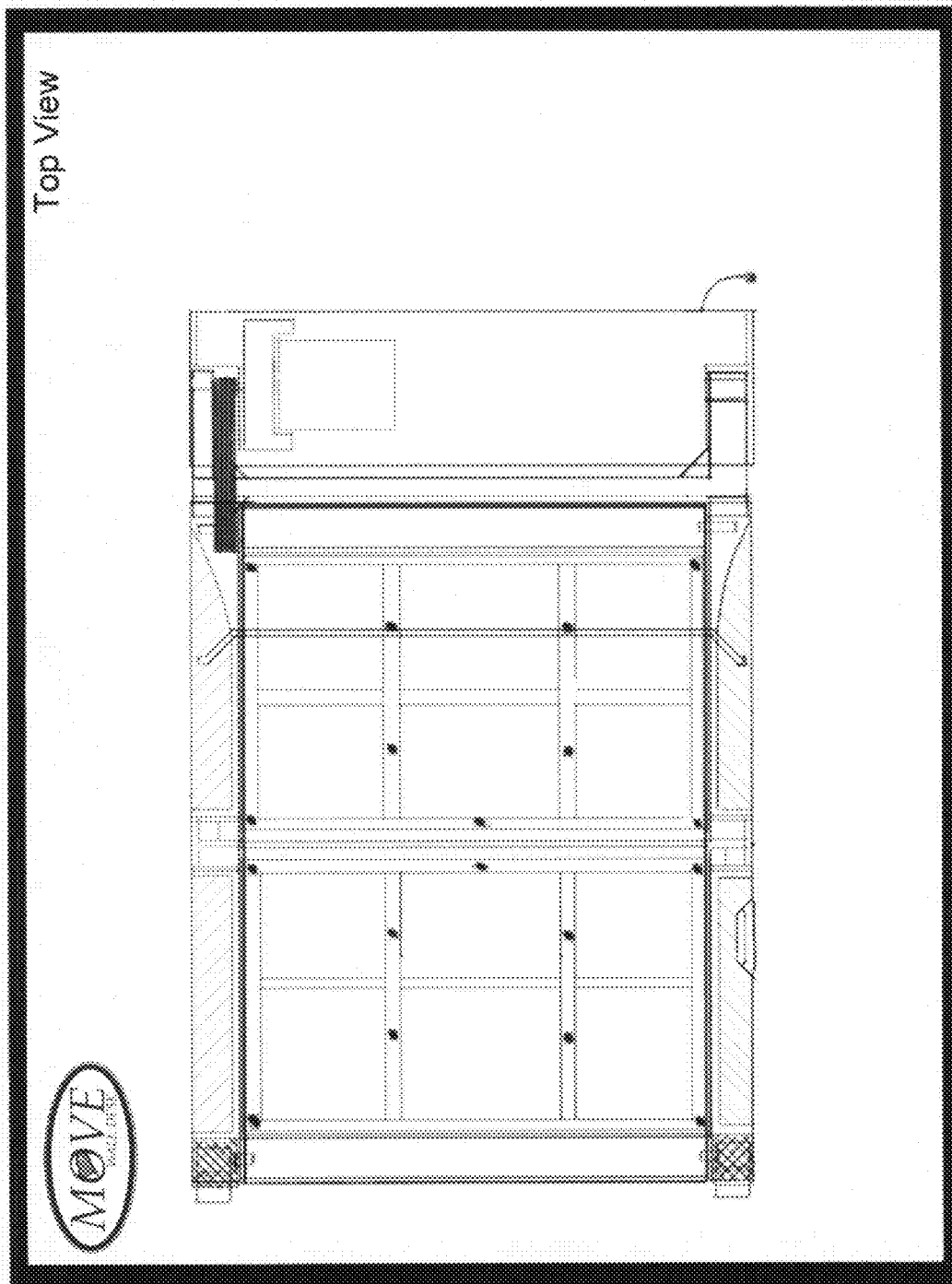


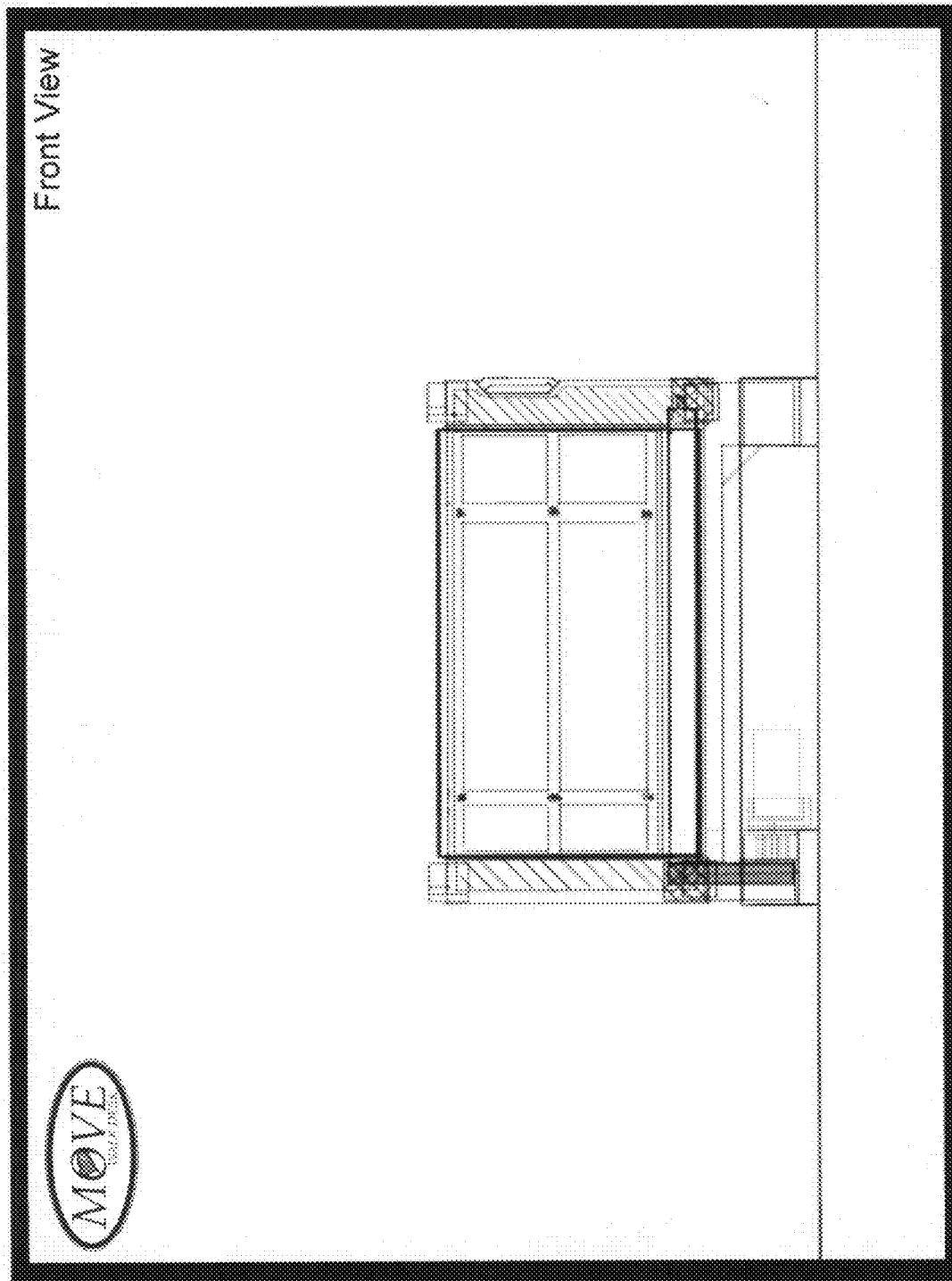


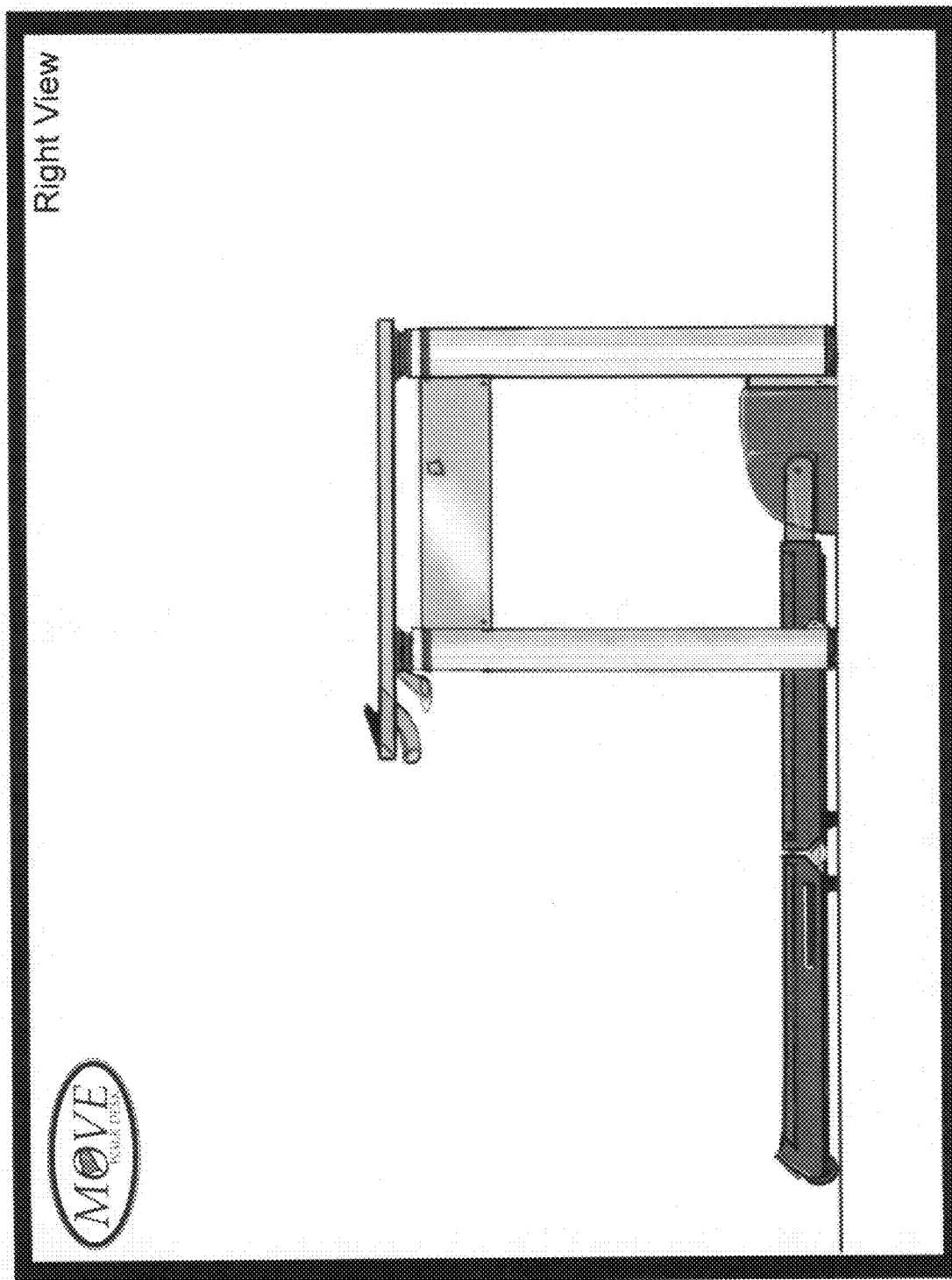
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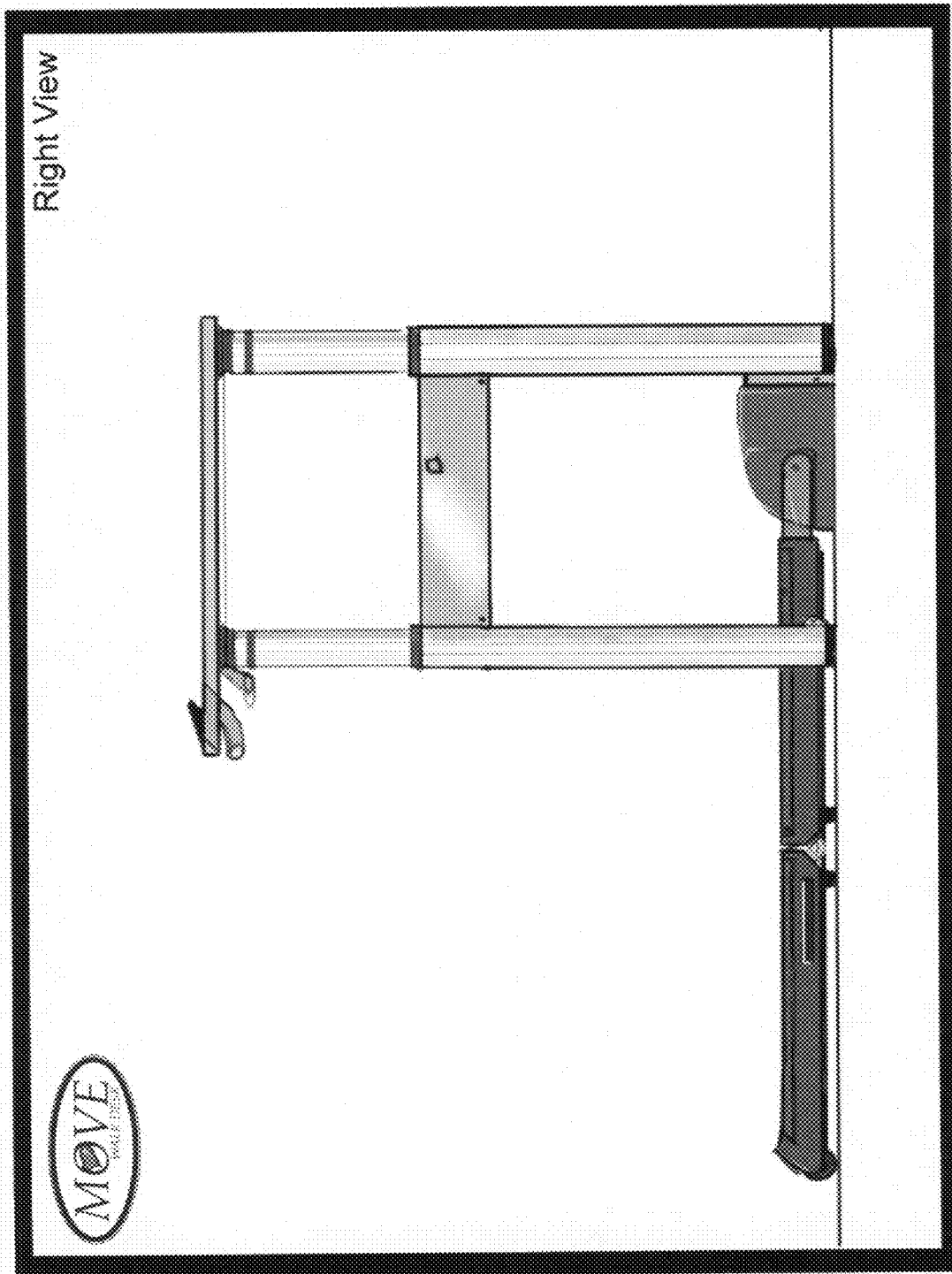


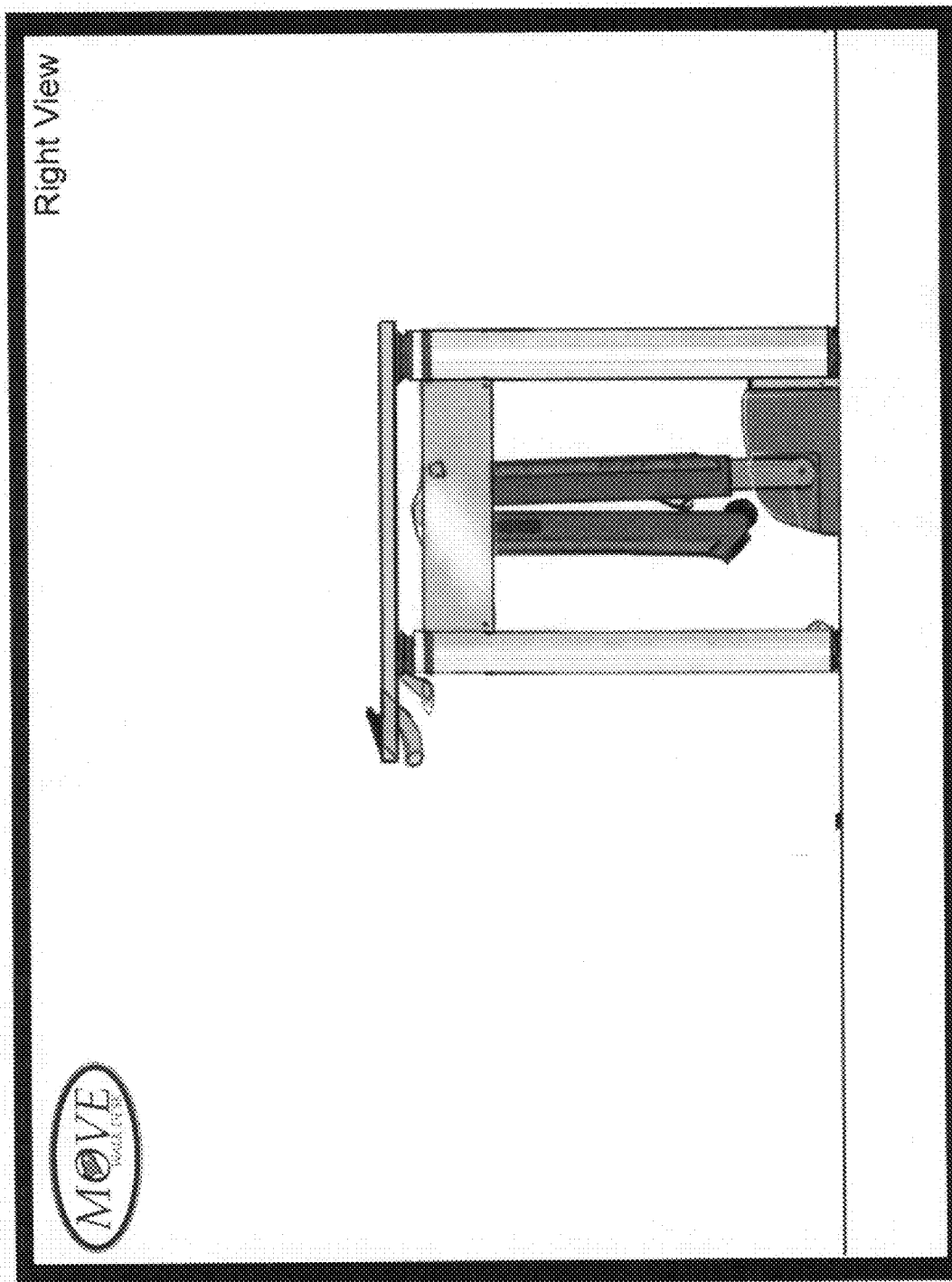
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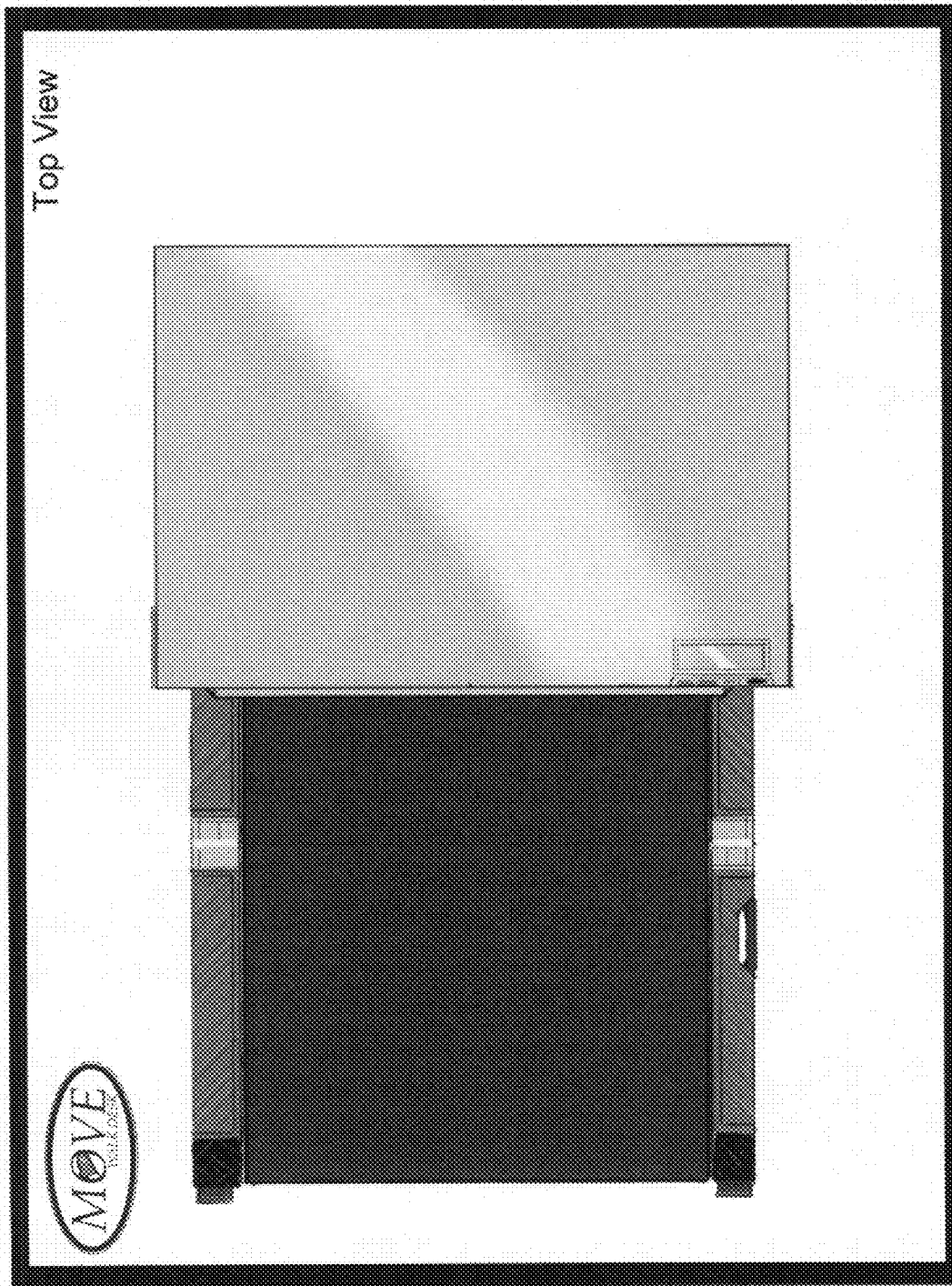


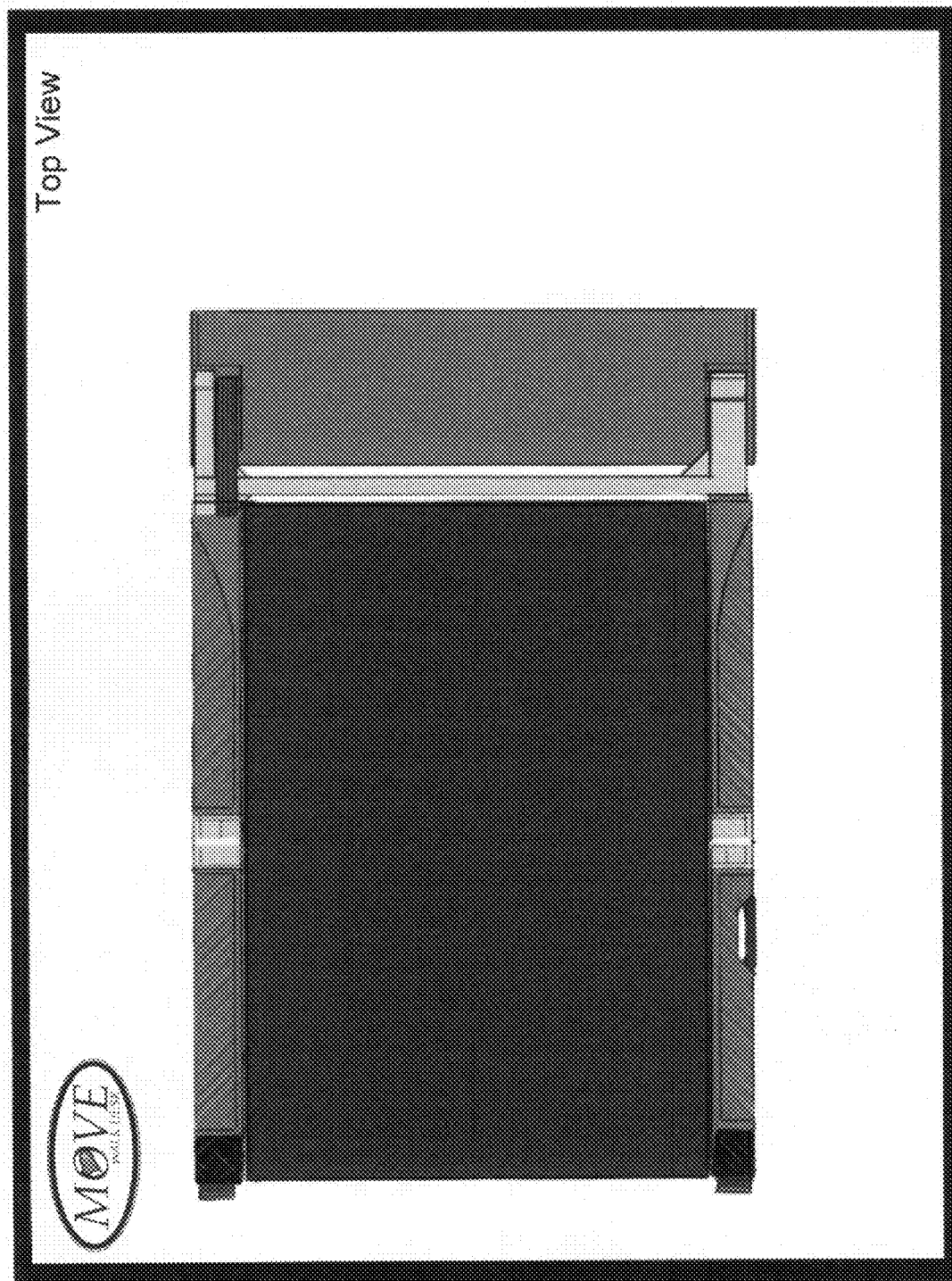


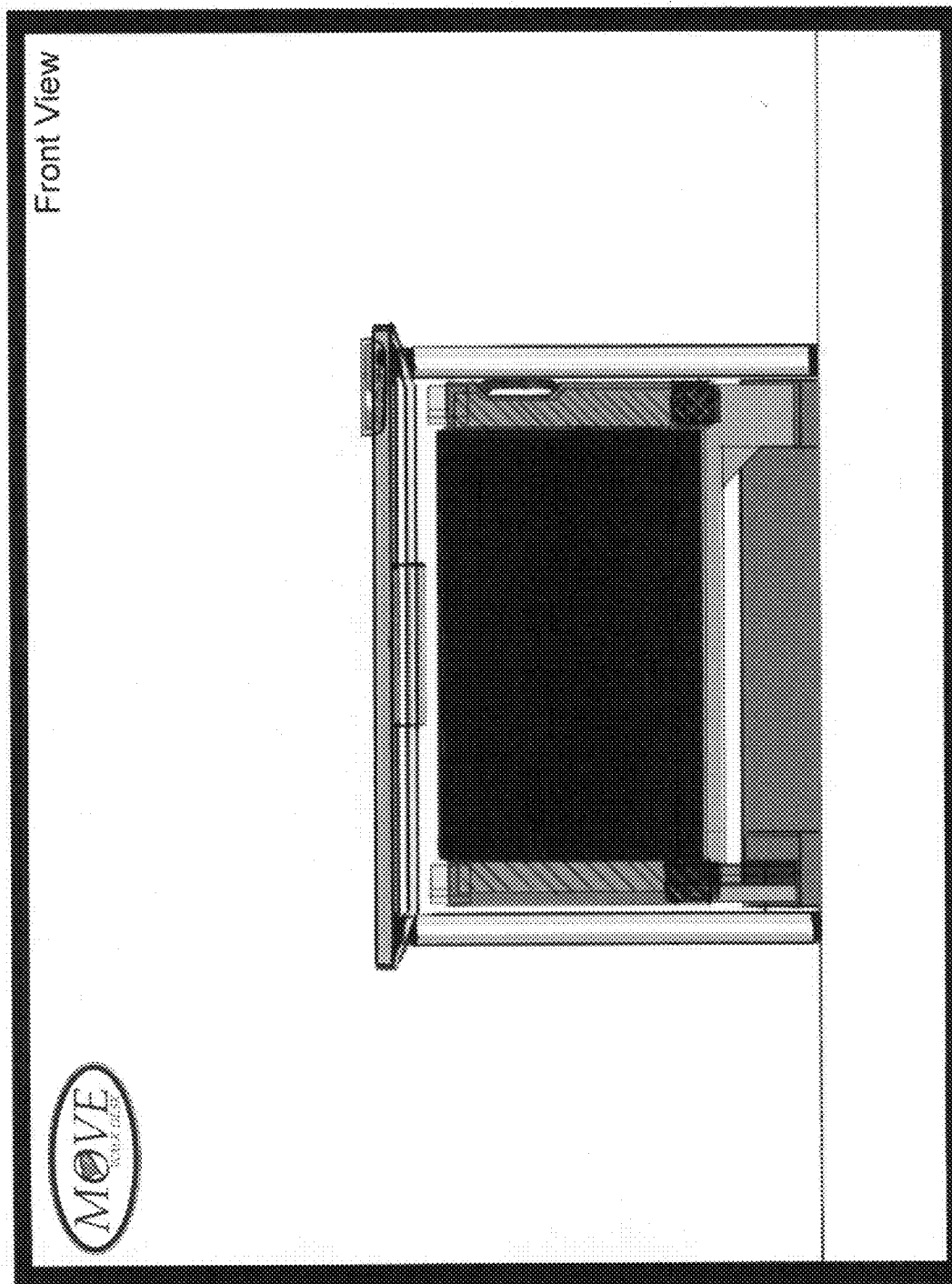


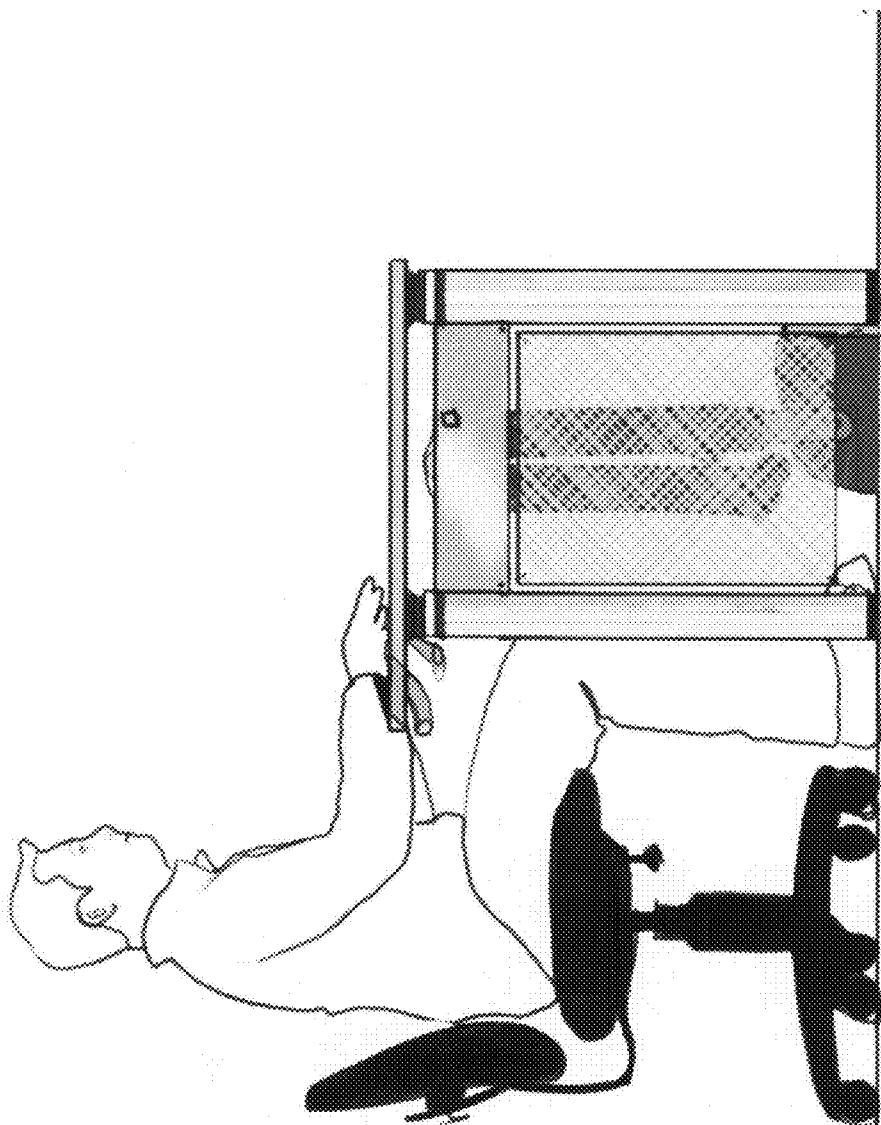
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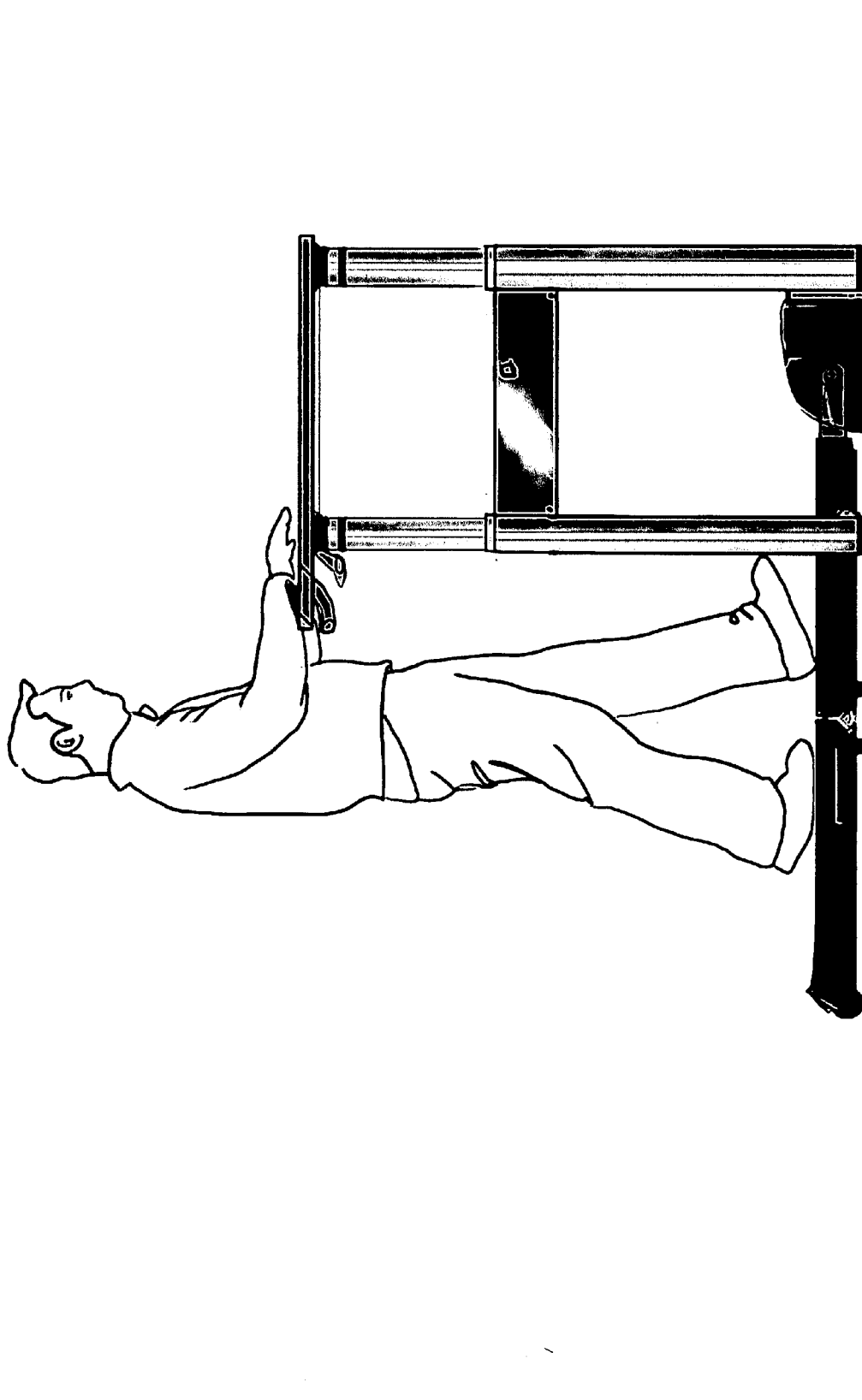




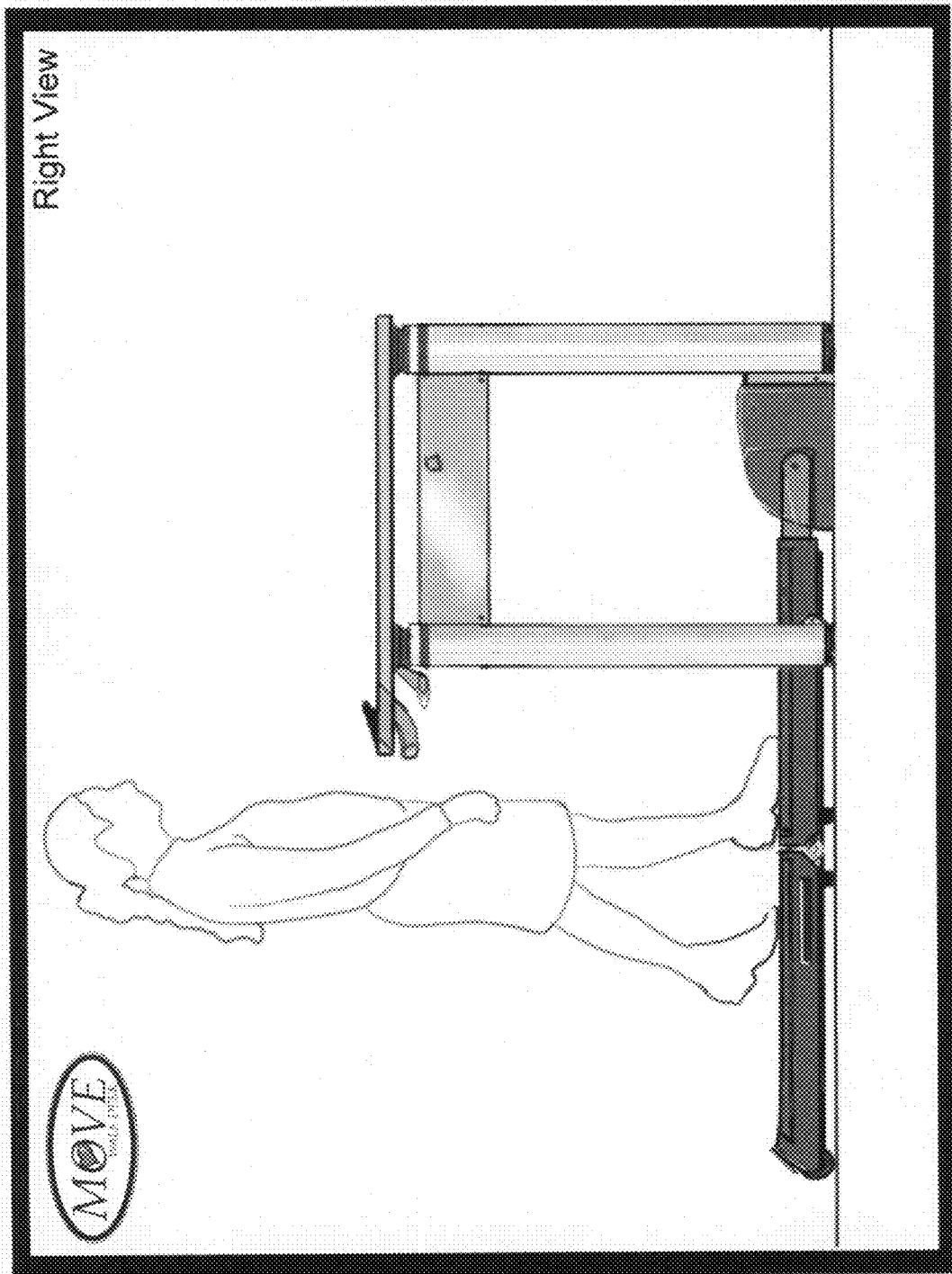




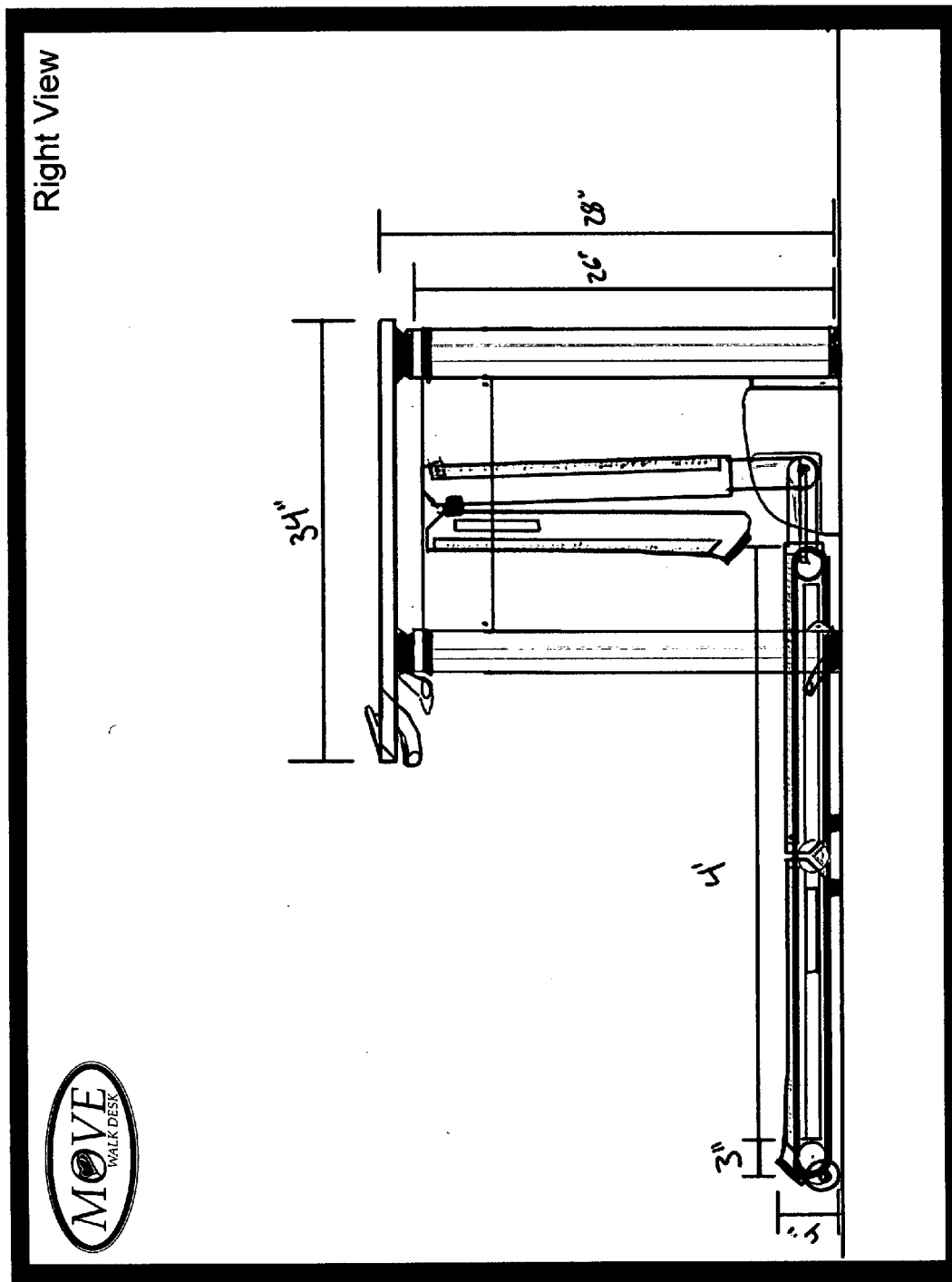
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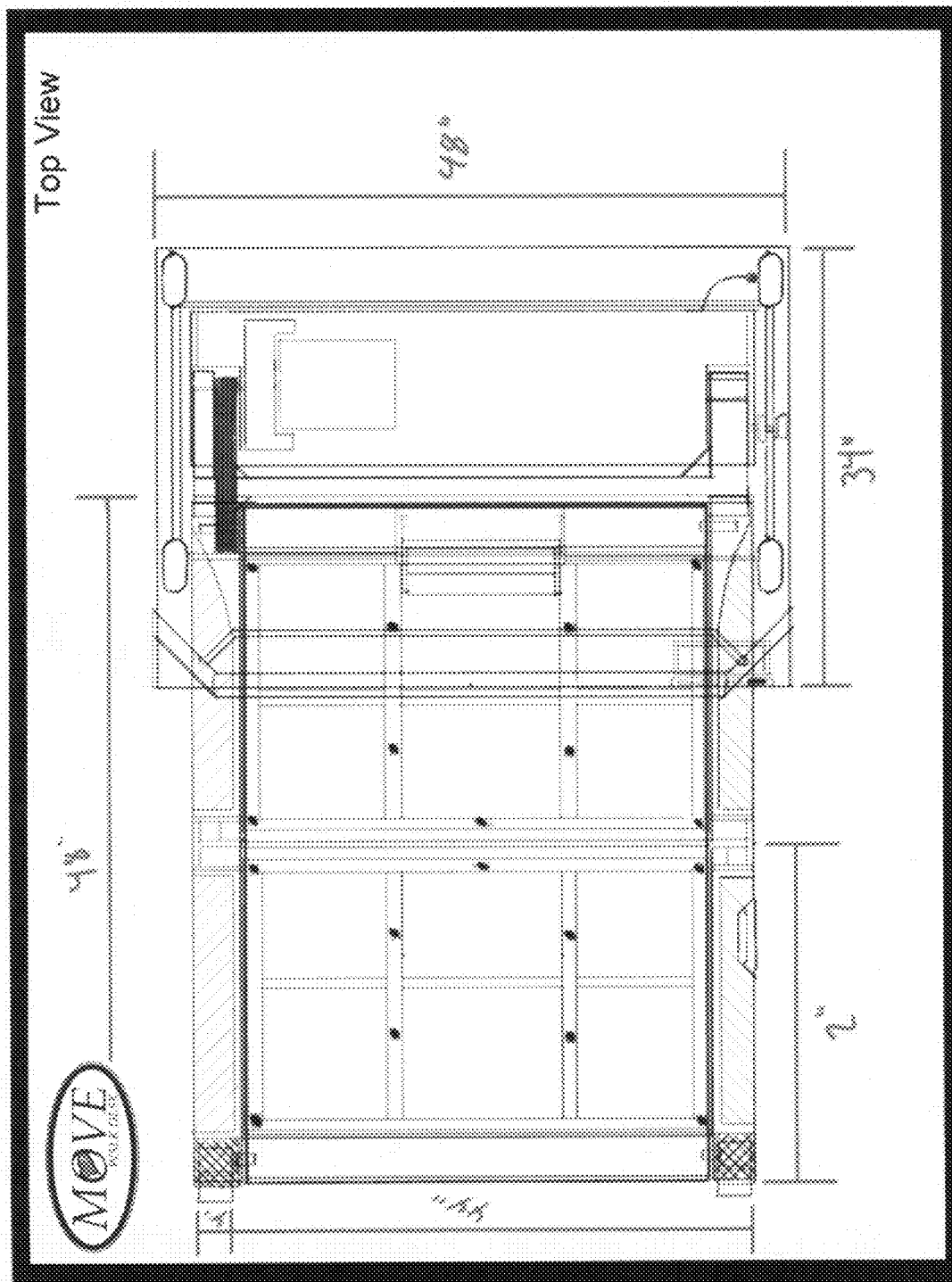
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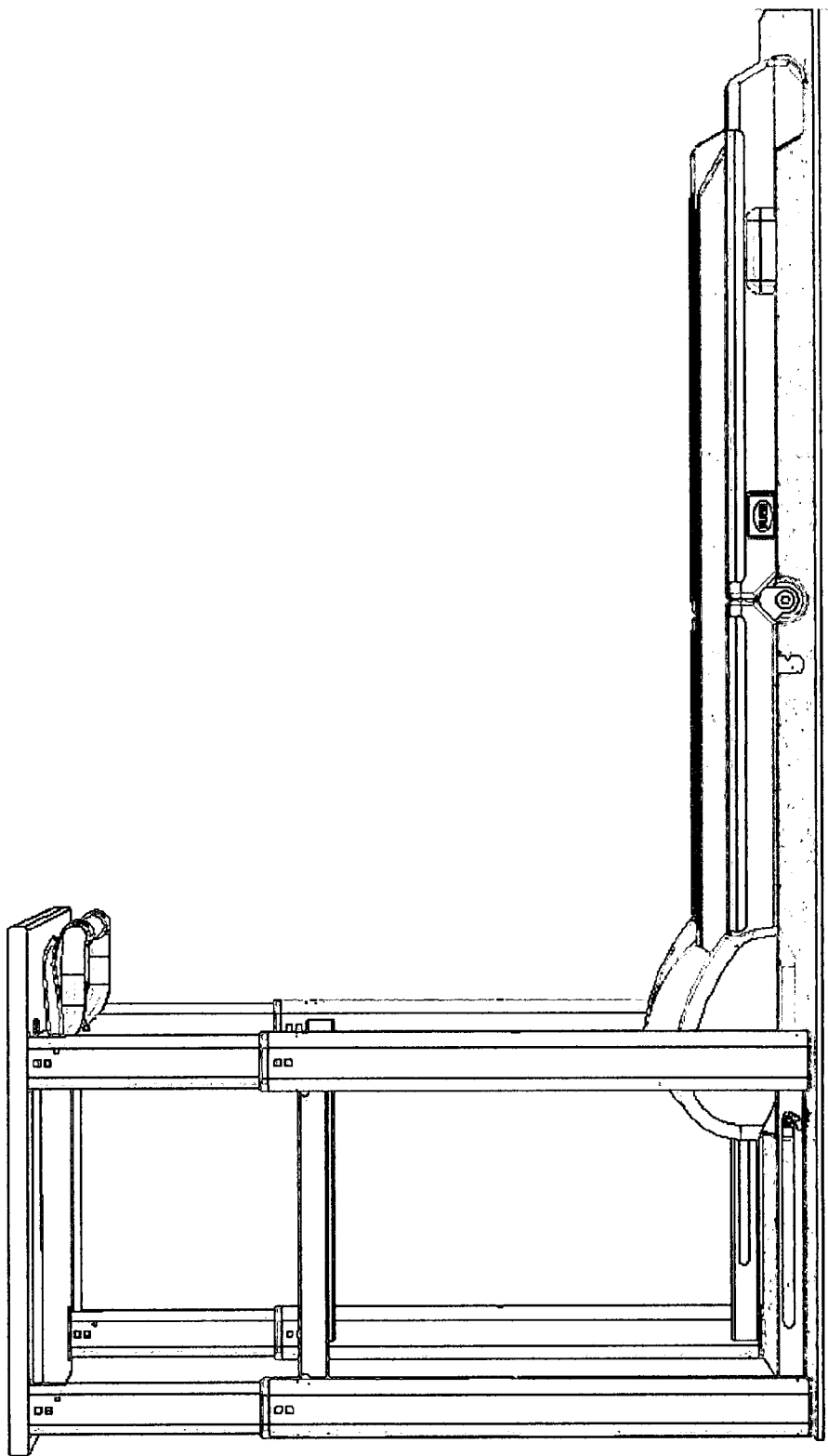


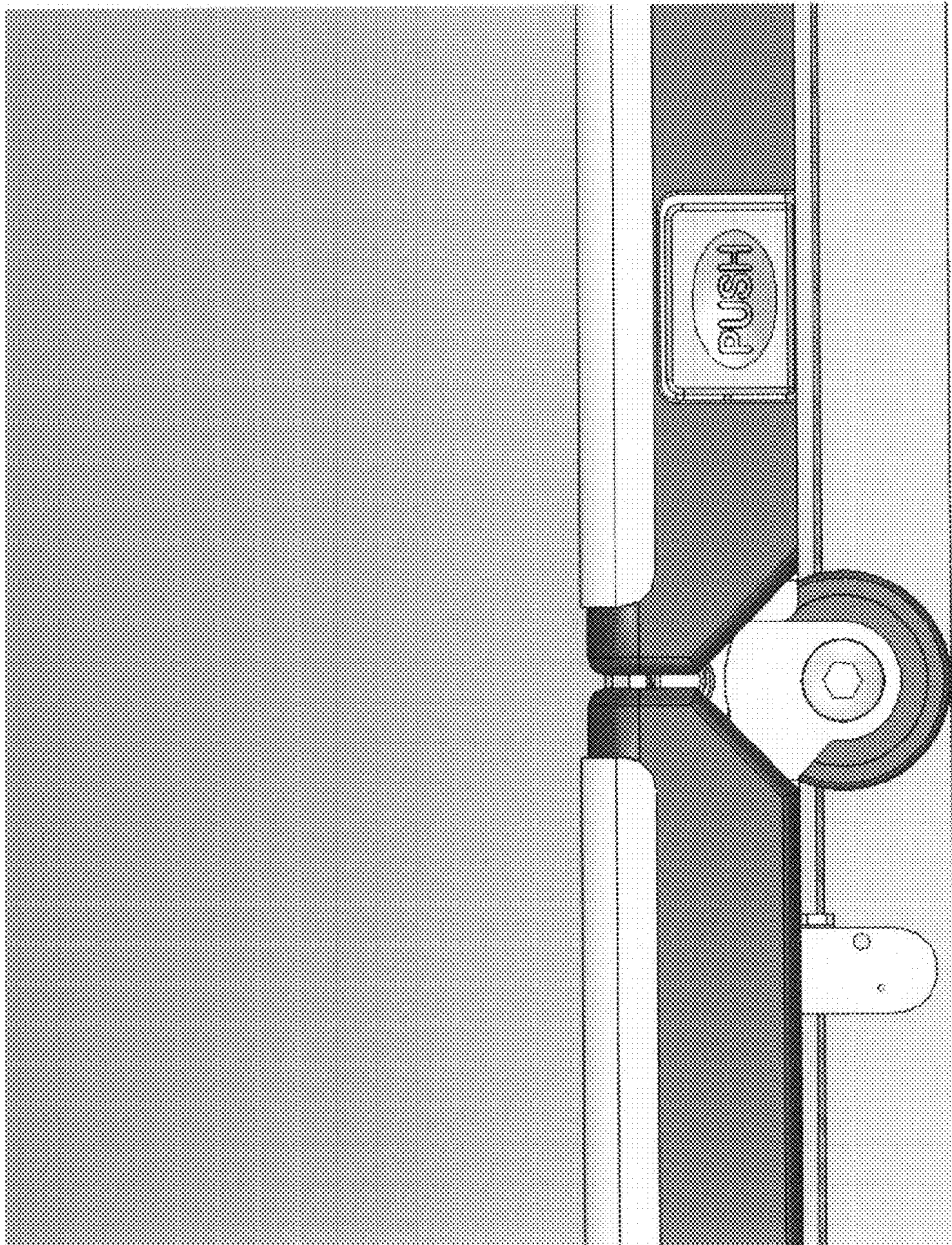




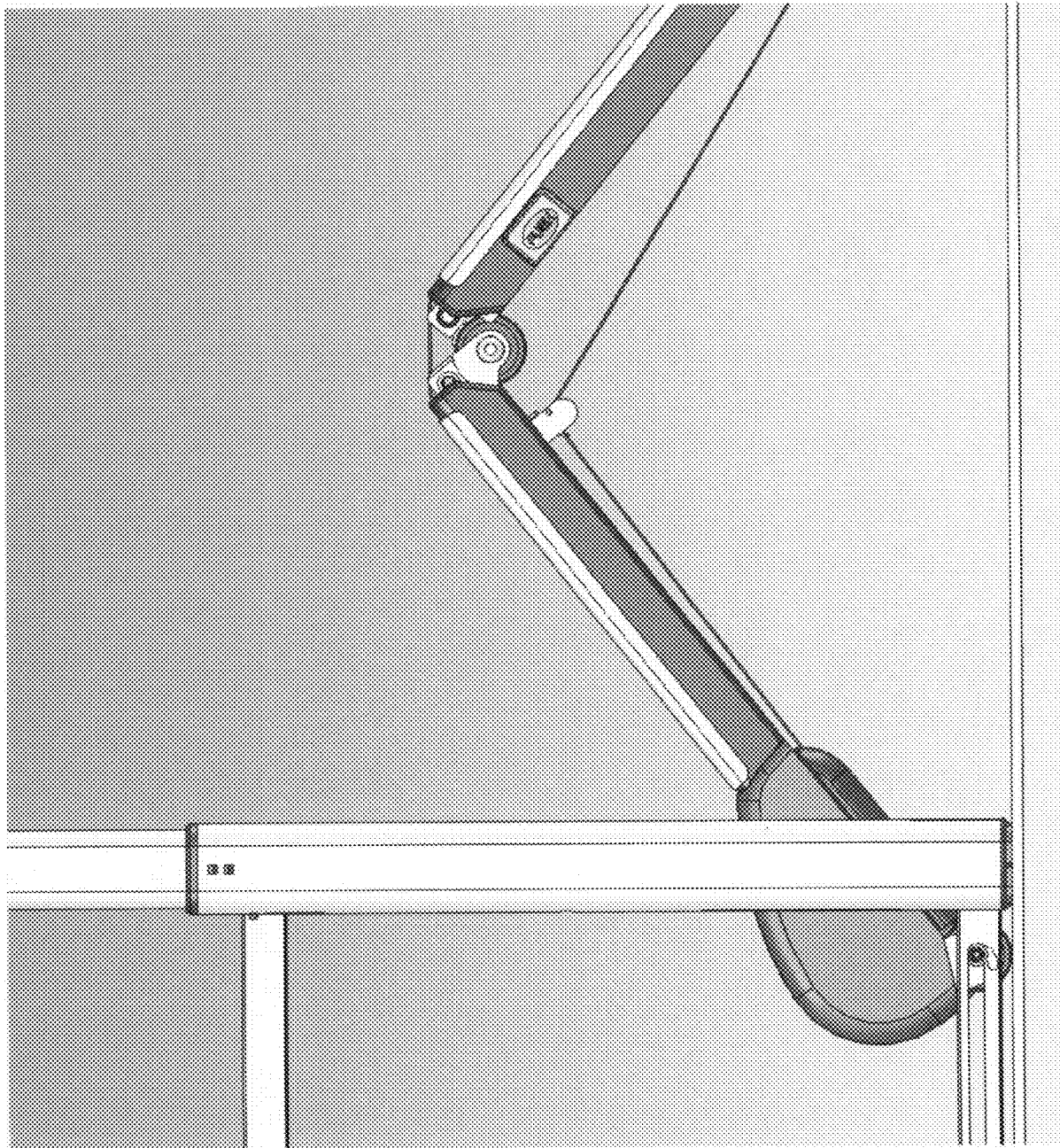


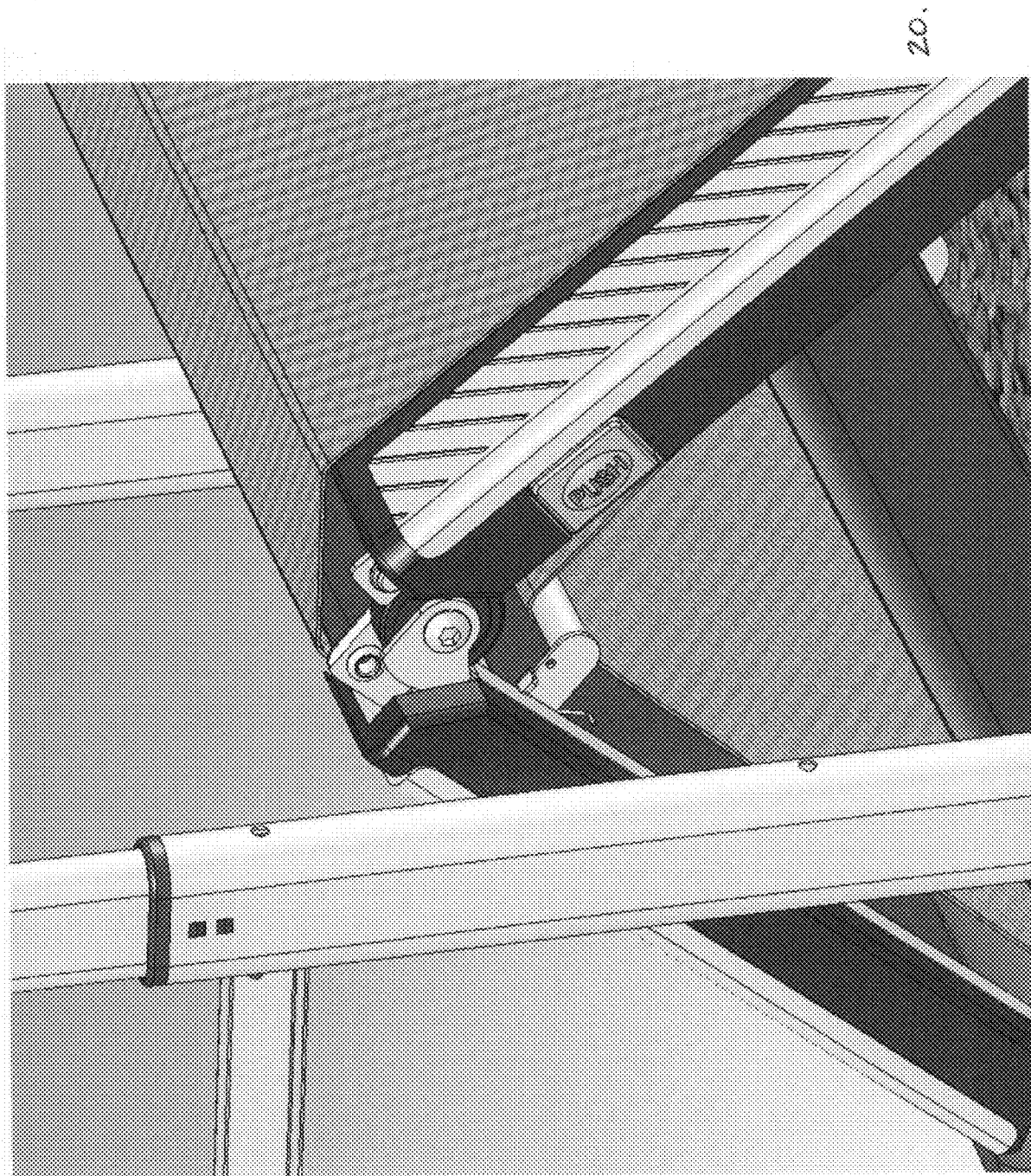






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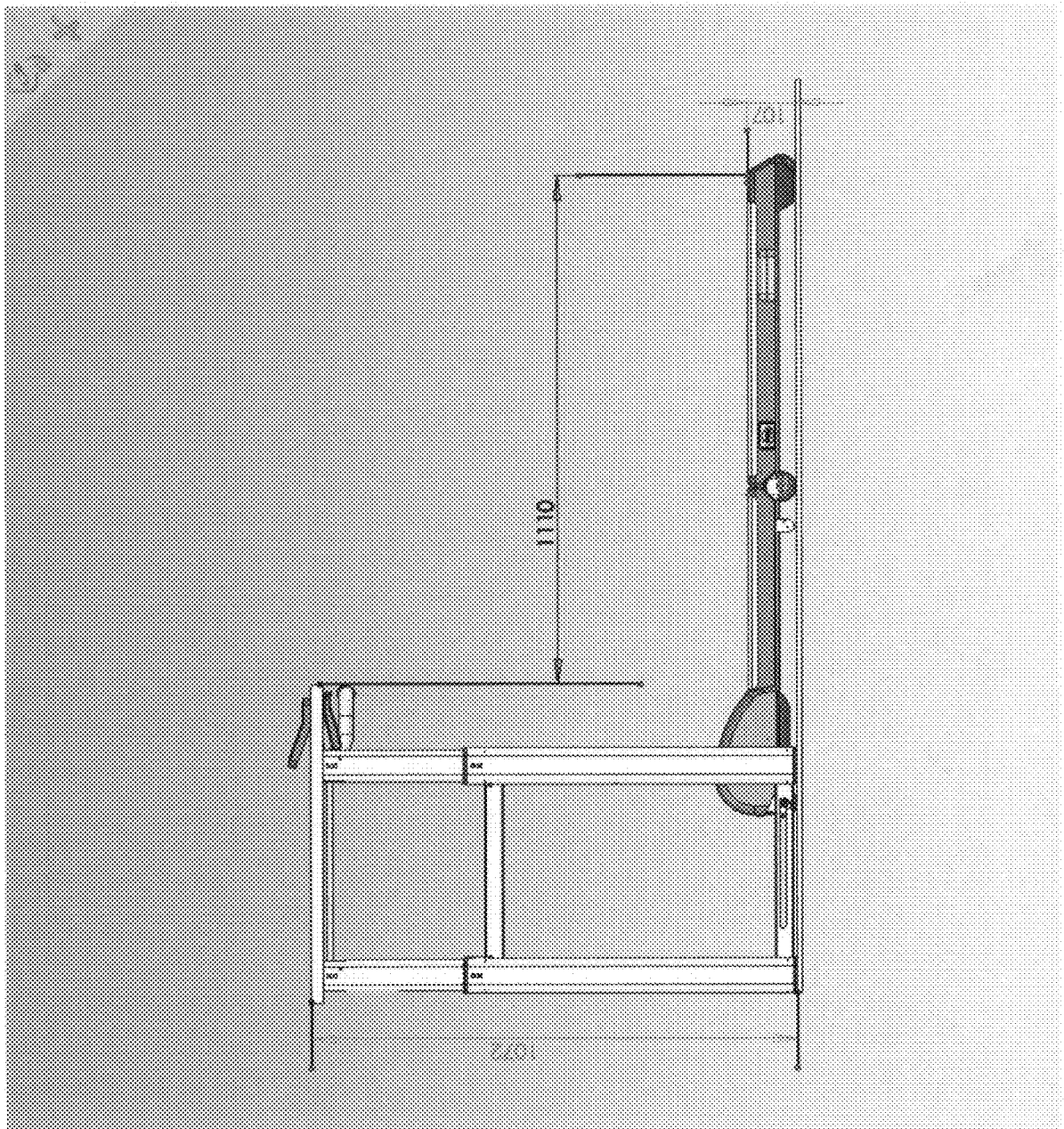


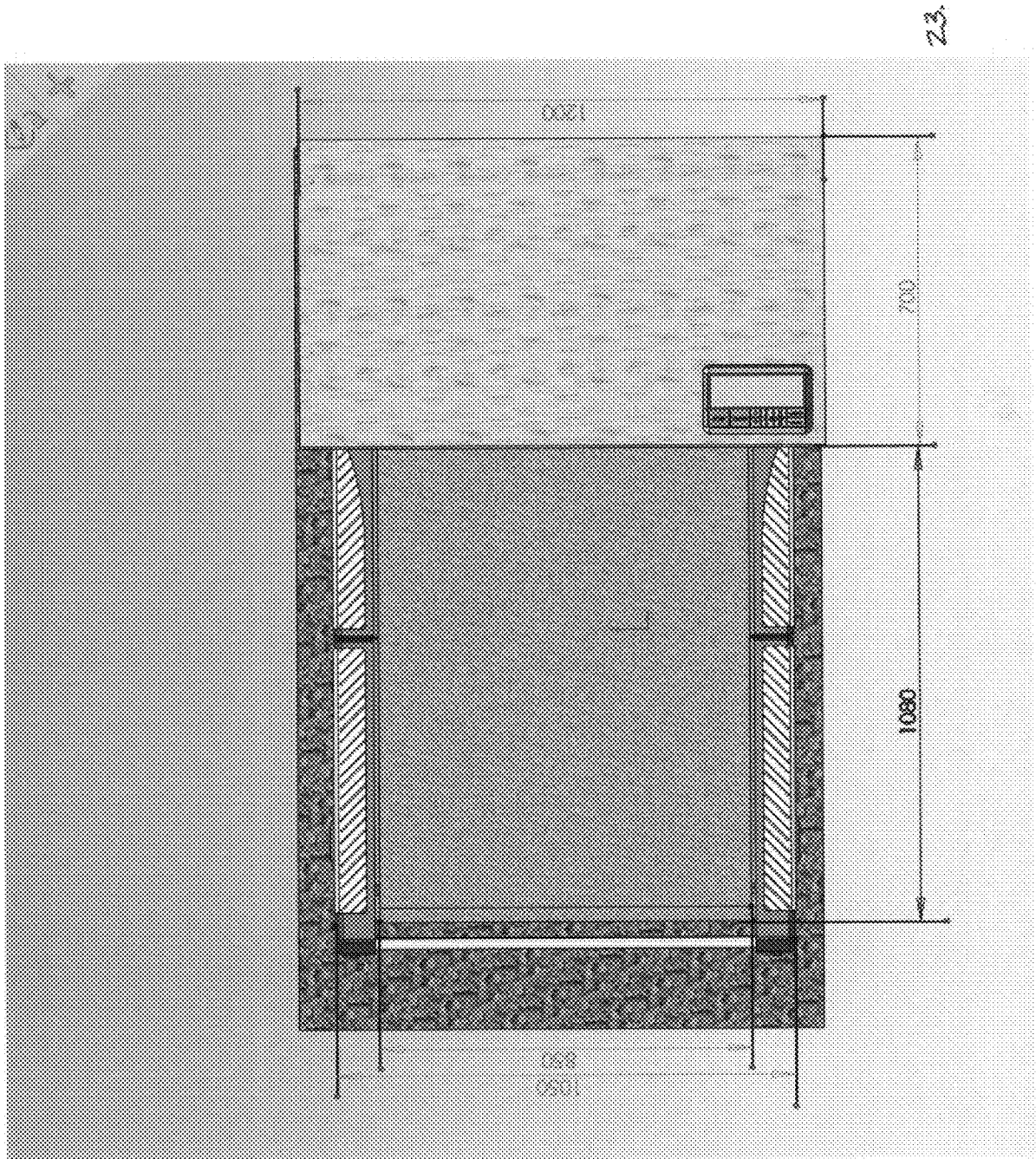


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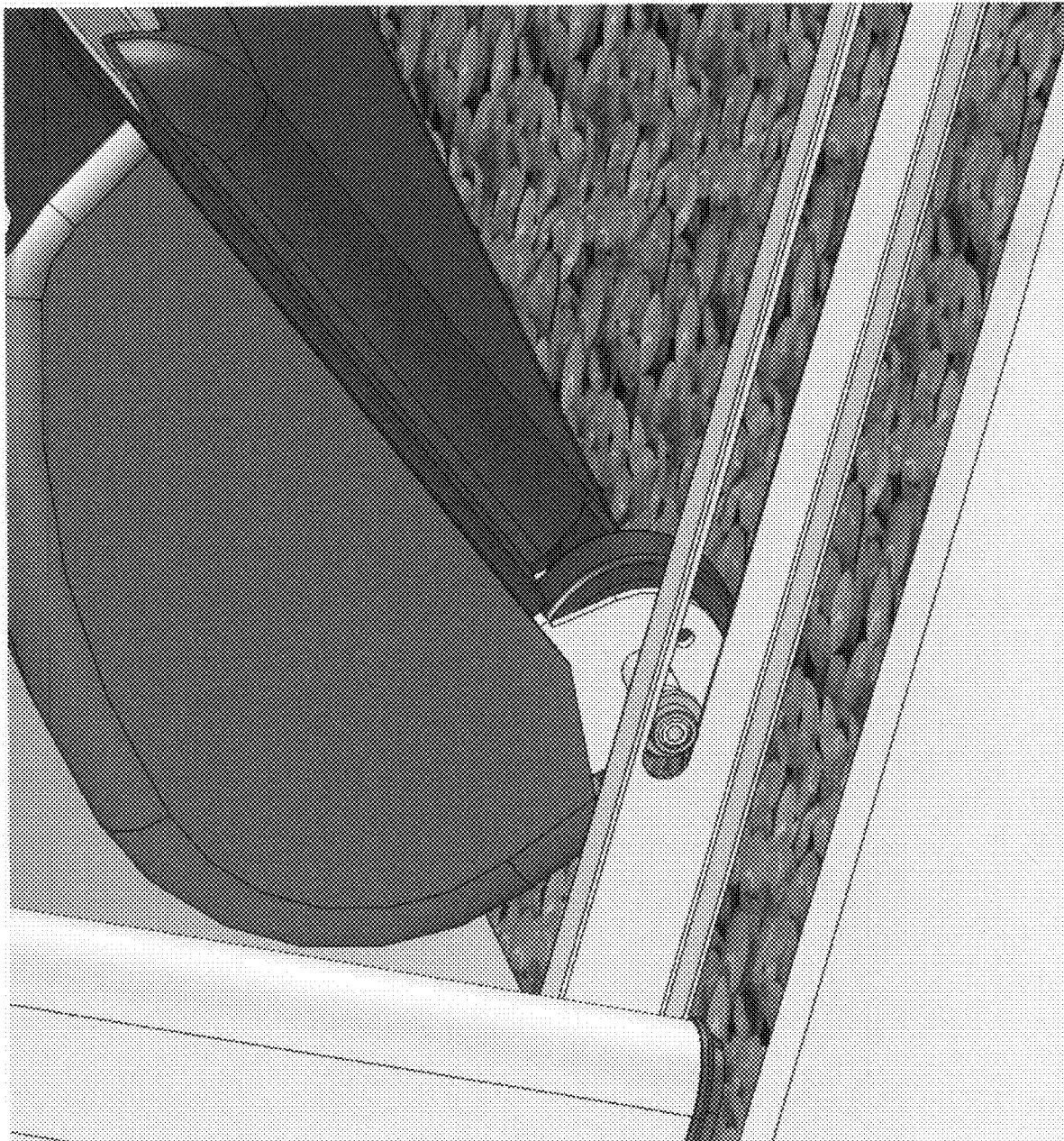
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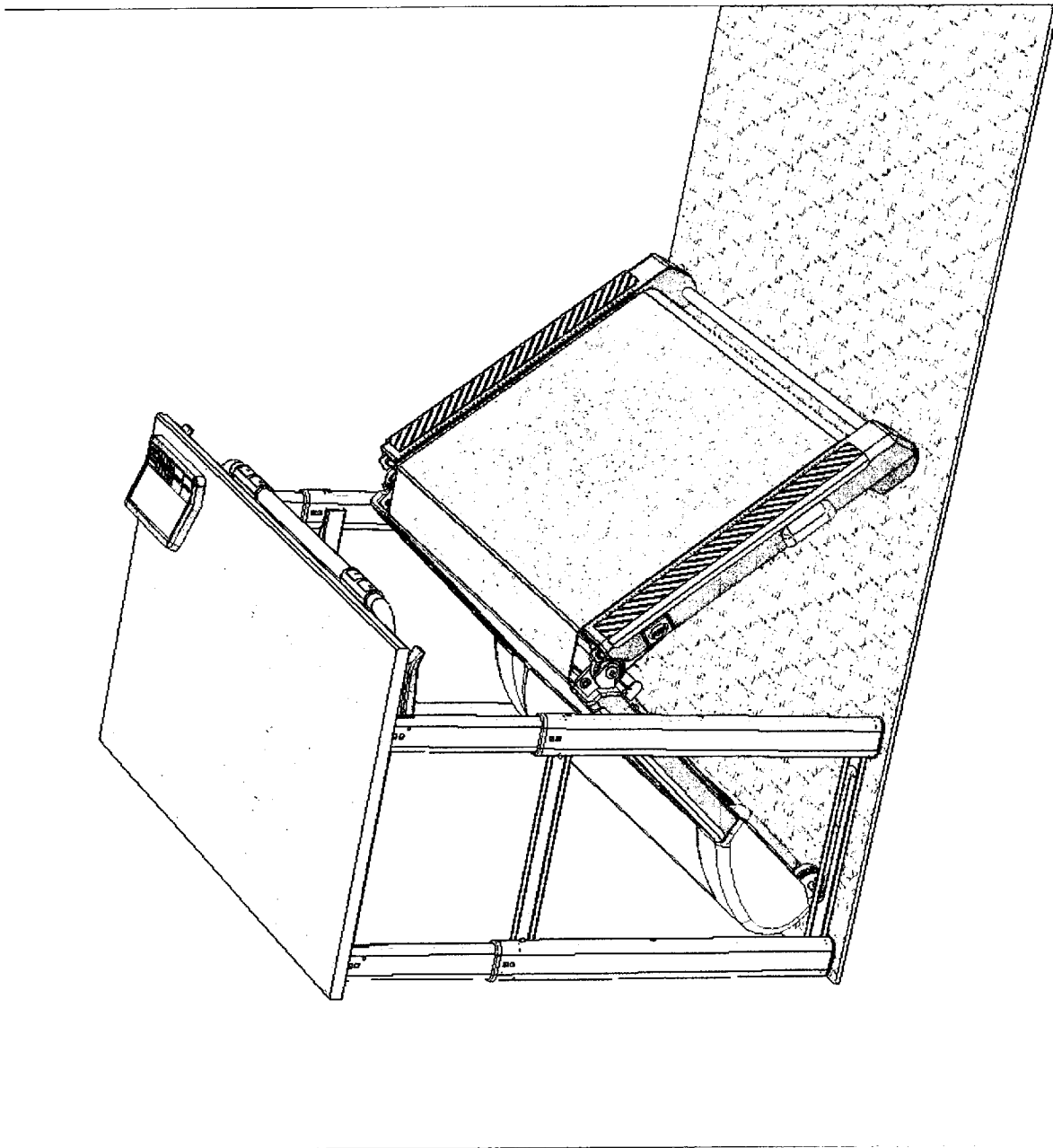


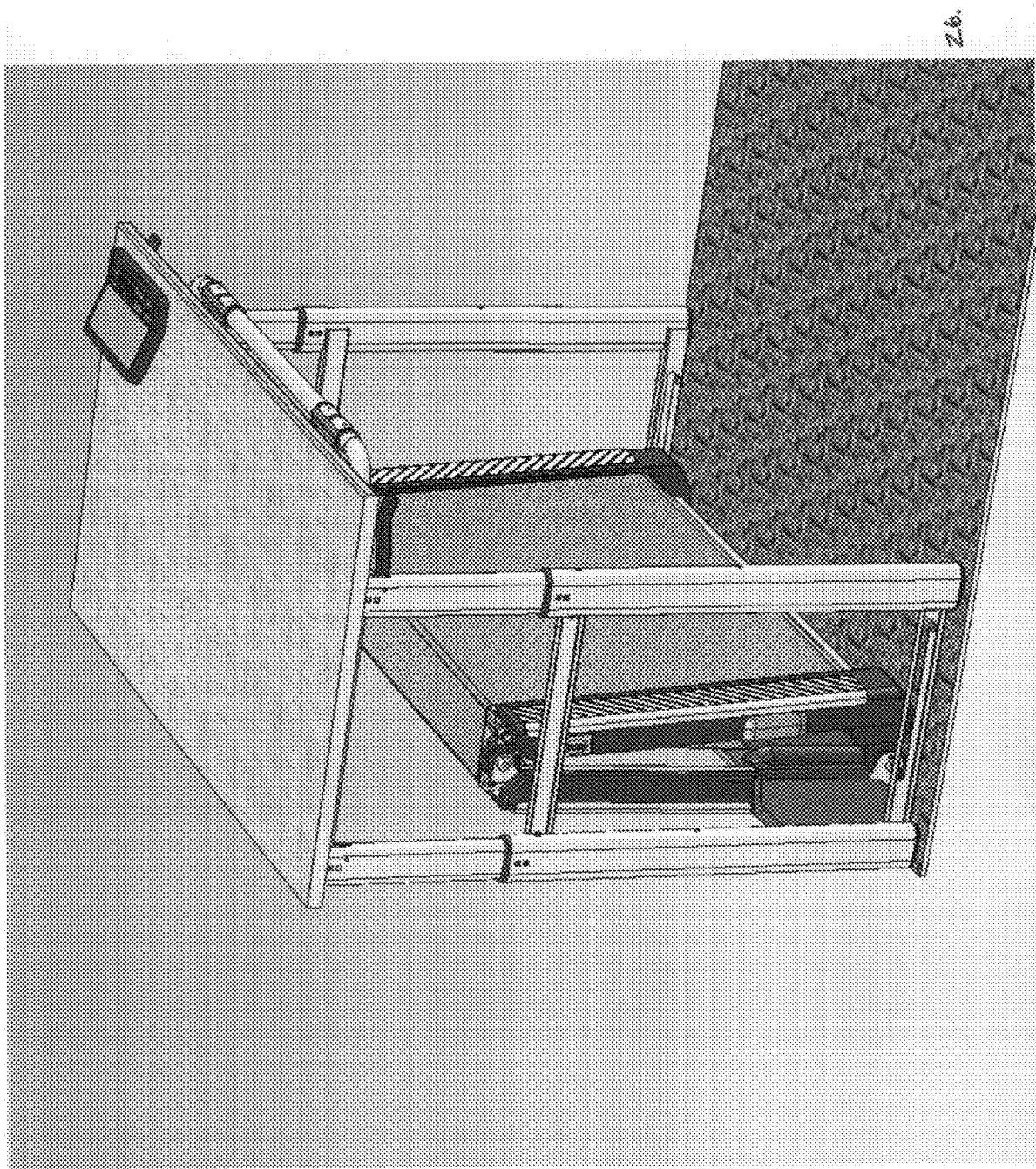


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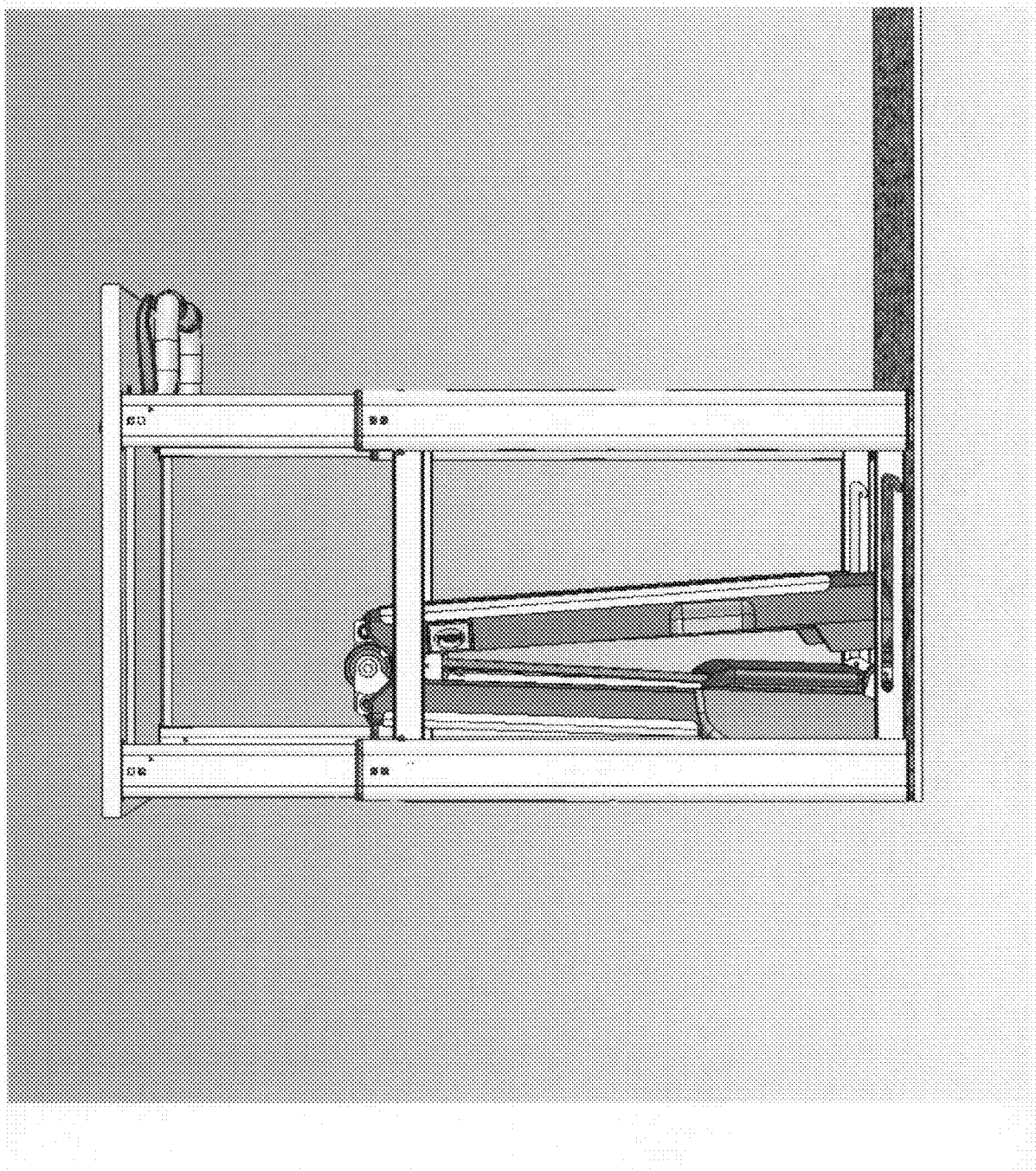


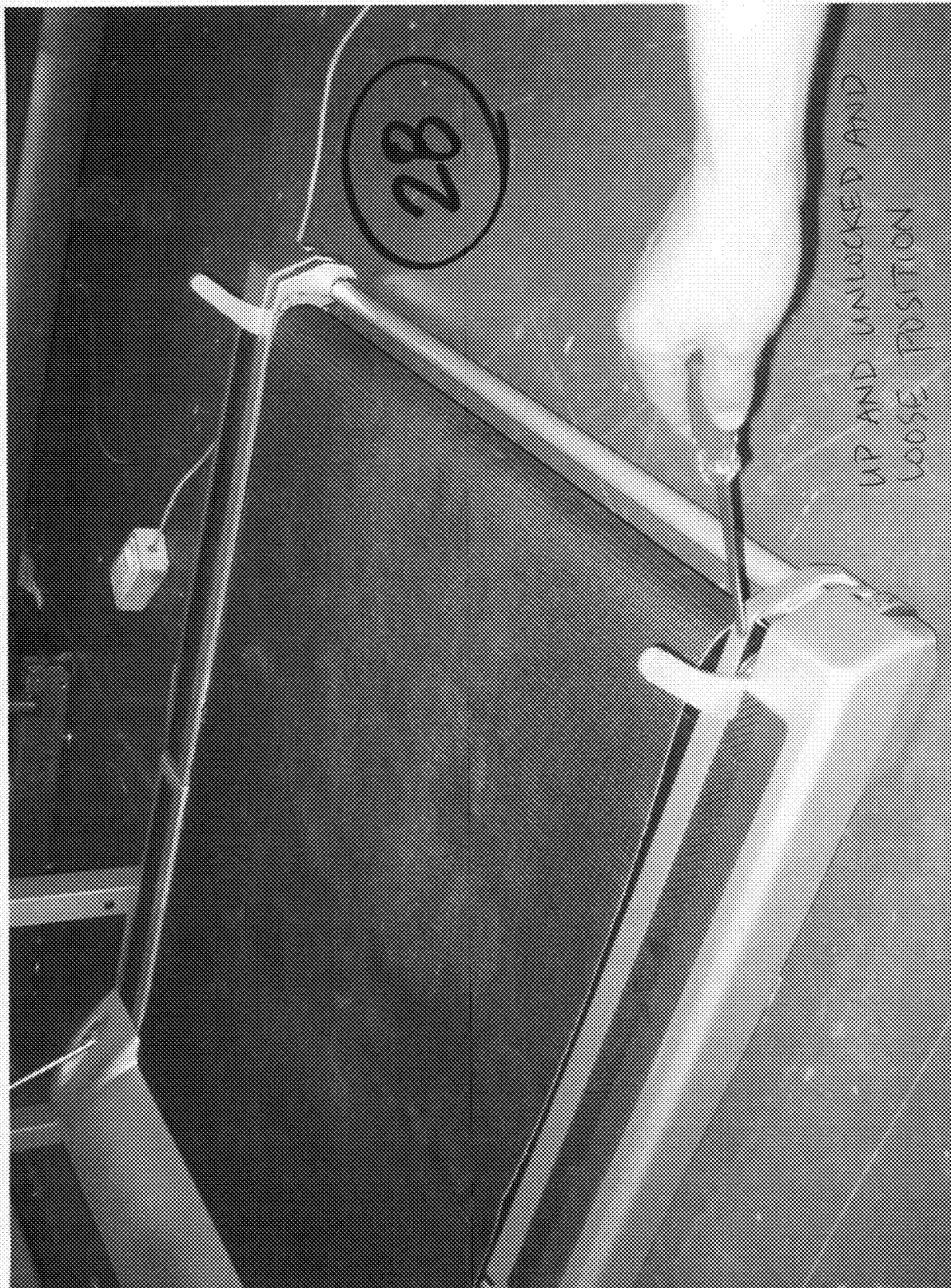
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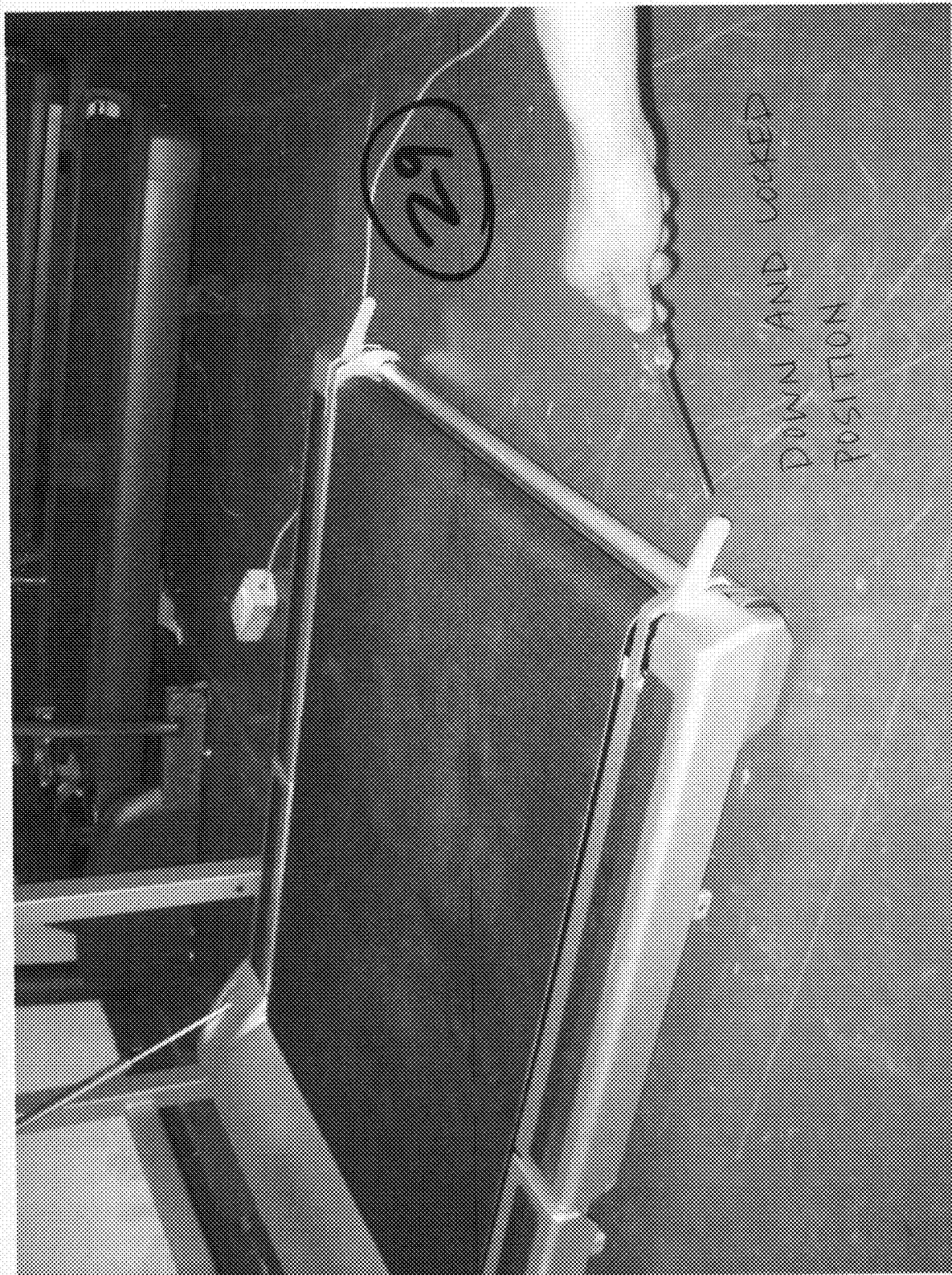




27.







**MID-DECK HINGED TREADMILL DECK**

[0001] This product is called a mid-deck hinged treadmill deck which is a hinged treadmill deck that folds upward into two parts. This patent illustrates two types of hinges to fold up a treadmill deck:

[0002] 1) A hinged deck with two rubber foos or isolators on the bottom side of the treadmill deck on the front and rear side of the hinge.

[0003] 2) A hinged wheel that sends the force down from the front and rear deck into the wheel directly below the hinge. This unit locks into place.

[0004] However, the patent would apply to all types of hinges that hinge a treadmill deck into two pieces in order to conserve height. All Mid-deck Hinged Treadmill Decks require a release mechanism on the rear or front roller of the treadmill. When this mechanism is released or unlocked the treadmill belt is loose allowing the deck to be folded. The roller mechanism must be locked into place before operating the treadmill.

[0005] All mid-deck hinged treadmill decks (should) also have a catch bar that runs beneath the returning belt on the bottom of the treadmill when down. This bar runs from the bottom of one deck rail side to the other bottom side of the deck rail and keeps the treadmill belt from falling to the ground when mid-deck hinged treadmill deck is folded up.

[0006] Since the mid-deck hinged treadmill can fold out of most any compact space (shown folding out from beneath a desk), it specifies a sliding rail on each side of the motor that allows the treadmill to be pulled out from beneath the desk. It may or may not have this deck rail depending on the usage. This slide rail is accomplished by a slot and a roller that glides within the slot or rail that allows the treadmill to be easily pulled out and pushed back into storage.

[0007] This product is called a mid-deck hinged treadmill deck which is a hinged treadmill deck that folds upward into two parts. This patent illustrates two types of hinges to fold up a treadmill deck:

[0008] 1) A hinged deck with two rubber foos or isolators on the bottom side of the treadmill deck on the front and rear side of the hinge.

[0009] 2) A hinged wheel that sends the force down from the front and rear deck into the wheel directly below the hinge. This unit locks into place.

[0010] However, the patent would apply to all types of hinges that hinge a treadmill deck into two pieces in order to conserve height.

[0011] All mid-deck hinged treadmill decks must also have a catch bar that runs beneath the returning belt on the bottom of the treadmill when down. This bar runs from the bottom of one deck rail side to the other bottom side of the deck rail and keeps the treadmill belt from falling to the ground when mid-deck hinged treadmill deck is folded up.

[0012] Since the mid-deck hinged treadmill can fold out of most any compact space (shown folding out from beneath a desk), it specifies a sliding rail on each side of the motor that allows the treadmill to be pulled out from beneath the desk. It may or may not have this deck rail depending on the usage. This slide rail is accomplished by a slot and a roller that glides

within the slot or rail that allows the treadmill to be easily pulled out and pushed back into storage.

**ILLUSTRATIONS, NUMBER AND EXPLANATION**

[0013] 1) Right view of mid-deck hinged treadmill deck in out position

[0014] 2) Right view of mid-deck hinged treadmill deck in folded position with catch bar that catches the bottom of the belt.

[0015] 3) Top view of mid-deck hinged treadmill in out position

[0016] 4) Front view of mid-deck hinged treadmill in folded up position

[0017] 5) Right view of mid-deck hinged treadmill deck with desk top down

[0018] 6) Right view of mid-deck hinged treadmill deck with desk top up

[0019] 7) Right view of mid-deck hinged treadmill deck folded up and stowed under desk top

[0020] 8) Top view of mid-deck hinged treadmill deck

[0021] 9) Top view of mid-deck hinged treadmill deck without desk

[0022] 10) Front view of mid-deck hinged treadmill deck folded below desk top

[0023] 11) Side view showing how desk may now be used as a normal desk with deck folded away

[0024] 12) Side view showing how one can elevate desk top and walk on treadmill while working

[0025] 13) Desk top may be adjusted up and down to all heights of users

[0026] 14) Right view showing mid-deck hinged treadmill in both up and down positions. Notice rubber feet (isolators) on front and back side of the hinge. Also notice catch bar that catches the bottom of the treadmill belt when folded.

[0027] 15) Right view of mid-deck hinged treadmill in folded and unfolded positions with dimensions

[0028] 16) Top view of mid-deck hinged treadmill deck

[0029] 17) Left view of mid-deck hinged treadmill deck with wheel in out and locked position with desk

[0030] 18) Close up of mid-deck hinge with wheel and push release to unlock and catch bar to catch the belt shown to the left of hinge

[0031] 19) Left view of deck folding up. Notice how catch bar catches lower belt. Also notice how the front rail slide rises up when unit is folded so that it can be slid back beneath desk.

[0032] 20) This angle best shows the catch bar as well as the wheel hinge release mechanism

[0033] 21) This shows the front slide rail

[0034] 22) This is the front left hand view of the mid-deck hinged treadmill with dimensions. The deck may be larger or smaller. This is merely a drawing for this particular product

[0035] 23) This is the top view of the mid-deck hinged treadmill in the folded out position

[0036] 24) This is a close up of the slide mechanism that along with the wheel that allows the treadmill to be moved out and in from it's container which, in this case is a desk.

[0037] 25) This shows the deck folding up and sliding into it's container (desk)

[0038] 26) This shows the unit fully folded up and slide all the way beneath the desk and stored

[0039] 27) Another side view

[0040] 28) Picture of releasing rear roller mechanism when unlocked or in up position notice loose belt

[0041] 29) Illustration of releasing rear roller mechanism when locked or in down position notice tight belt

1. I claim this Mid-deck Hinged Treadmill Deck allows a treadmill to be folded into and out of a small space such as from beneath a desk, a bed, a sofa, a wall or any other limited space where a treadmill function would be useful.

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