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**Fujimoto et al.**

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(54) **FILM-FORMING APPARATUS**

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Aug. 30, 2010 (JP) ..... 2010-020912

(51) **LOC (9) Cl.** ..... **15-99**

(52) **U.S. Cl.**  
USPC ..... **D15/199**

(58) **Field of Classification Search**  
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118/50, 52, 302, 323, 500, 679, 680, 715,  
118/724, 726, 728, 730; 204/192.1, 192.12,  
204/298.08, 298.11, 298.15, 298.25;  
219/121.77; 347/33; 427/52, 66, 128, 255.23,  
427/294, 372.2, 566; 430/270.1, 327  
See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

5,165,221 A \* 11/1992 Udelson et al. .... 53/550  
5,482,607 A \* 1/1996 Hashimoto et al. .... 204/298.25

5,533,446 A \* 7/1996 Hashimura et al. .... 101/150  
8,011,315 B2 \* 9/2011 Matsumoto et al. .... 118/52  
2002/0197878 A1 \* 12/2002 Konishi et al. .... 438/723  
2003/0197754 A1 \* 10/2003 Nakamura ..... 347/33  
2003/0226834 A1 \* 12/2003 Ishikawa et al. .... 219/121.77  
2006/0003105 A1 \* 1/2006 Kobayashi et al. .... 427/372.2  
2006/0236927 A1 \* 10/2006 Nakamura ..... 118/302  
2007/0215045 A1 \* 9/2007 Higaki et al. .... 118/680  
2008/0118861 A1 \* 5/2008 Kosugi et al. .... 430/270.1  
2009/0226604 A1 \* 9/2009 Ohmi et al. .... 427/66  
2010/0196623 A1 \* 8/2010 Honda et al. .... 427/566  
2010/0251960 A1 \* 10/2010 Shimizu ..... 118/50  
2012/0103793 A1 \* 5/2012 Fujii ..... 204/192.1  
2012/0111722 A1 \* 5/2012 Kodaira et al. .... 204/298.08  
2012/0171784 A1 \* 7/2012 Wang ..... 438/3  
2012/0180727 A1 \* 7/2012 Hasegawa et al. .... 118/730  
2012/0199471 A1 \* 8/2012 Matsumoto et al. .... 204/192.12  
2012/0199477 A1 \* 8/2012 Uenosono ..... 204/298.15  
2012/0231158 A1 \* 9/2012 Ueno ..... 427/128

\* cited by examiner

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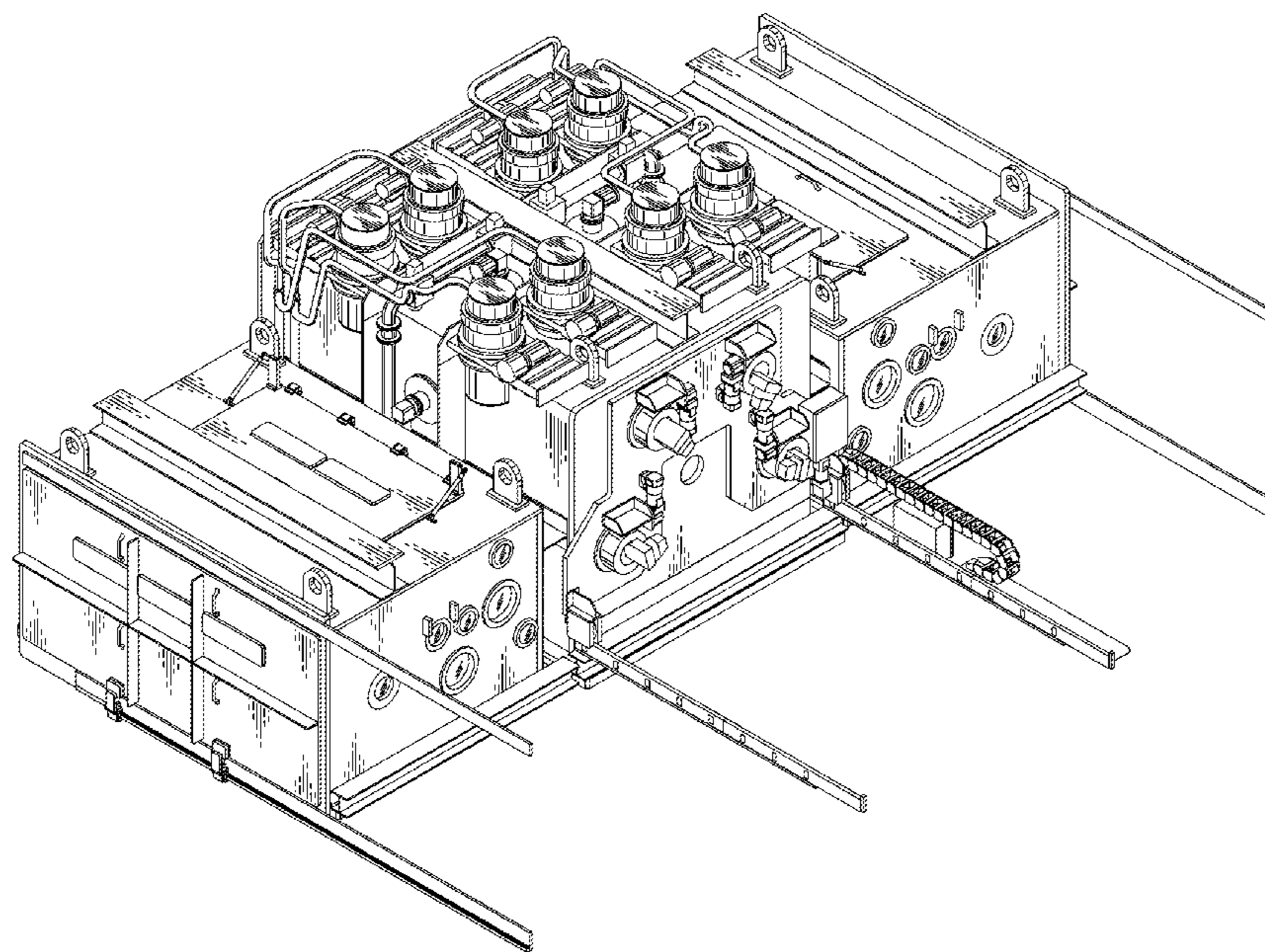
(57) **CLAIM**

The ornamental design for film-forming apparatus, as shown and described.

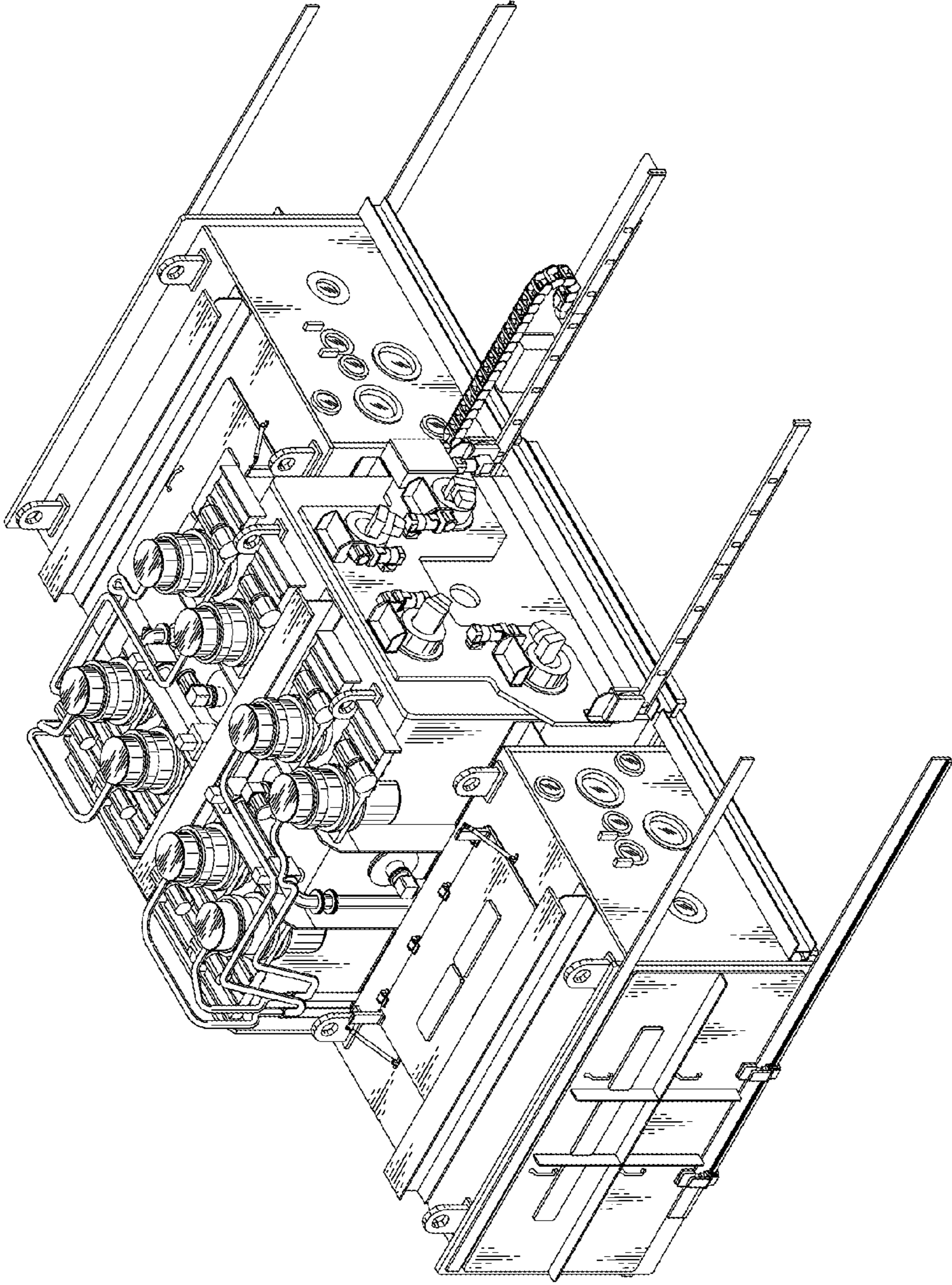
**DESCRIPTION**

FIG. 1 is a front perspective view of a film-forming apparatus showing our new design;  
FIG. 2 is a rear perspective view thereof;  
FIG. 3 is a front view thereof;  
FIG. 4 is a rear view thereof;  
FIG. 5 is a top plan view thereof;  
FIG. 6 is a right side view thereof; and,  
FIG. 7 is a left side view thereof.

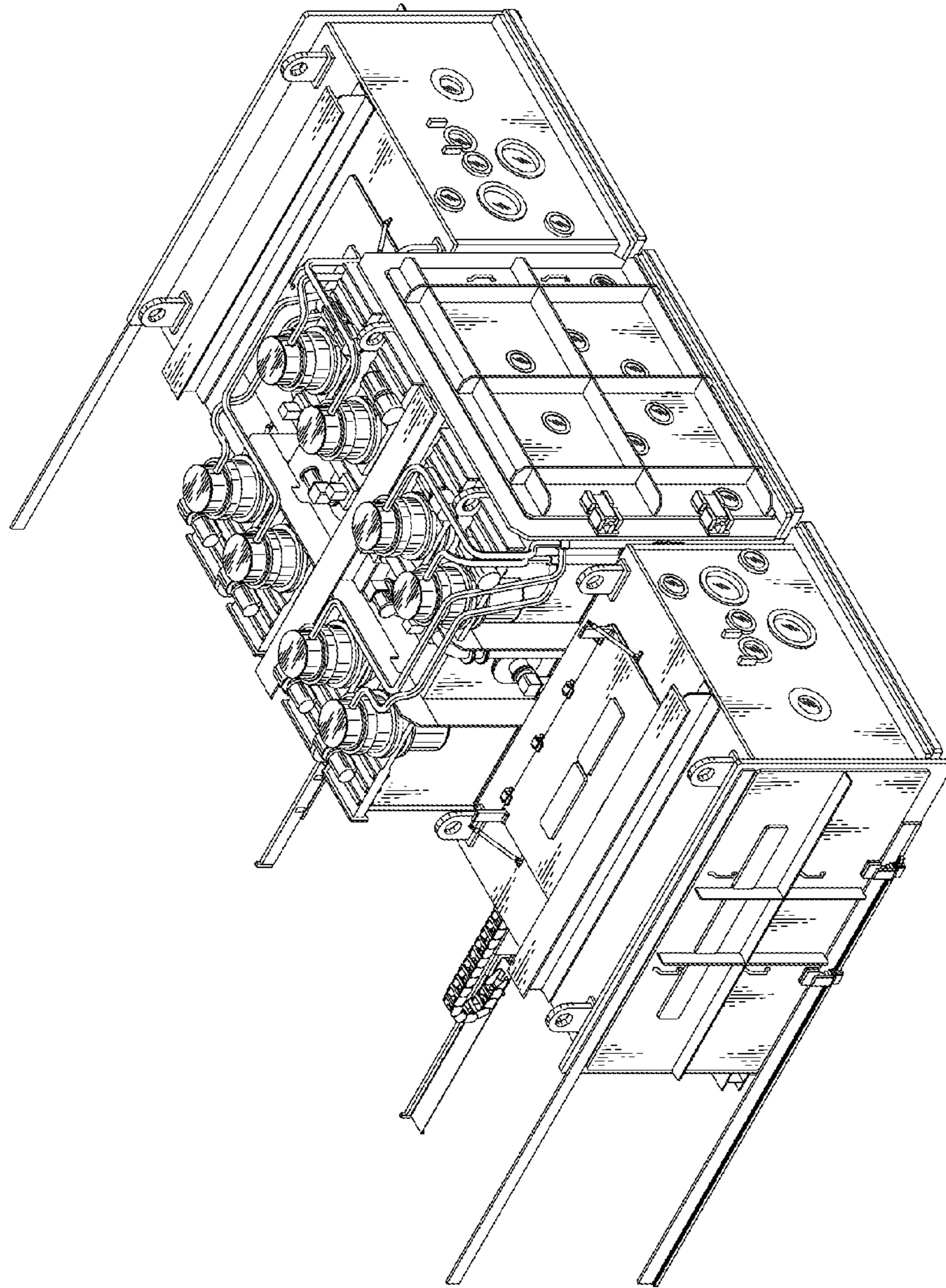
**1 Claim, 7 Drawing Sheets**



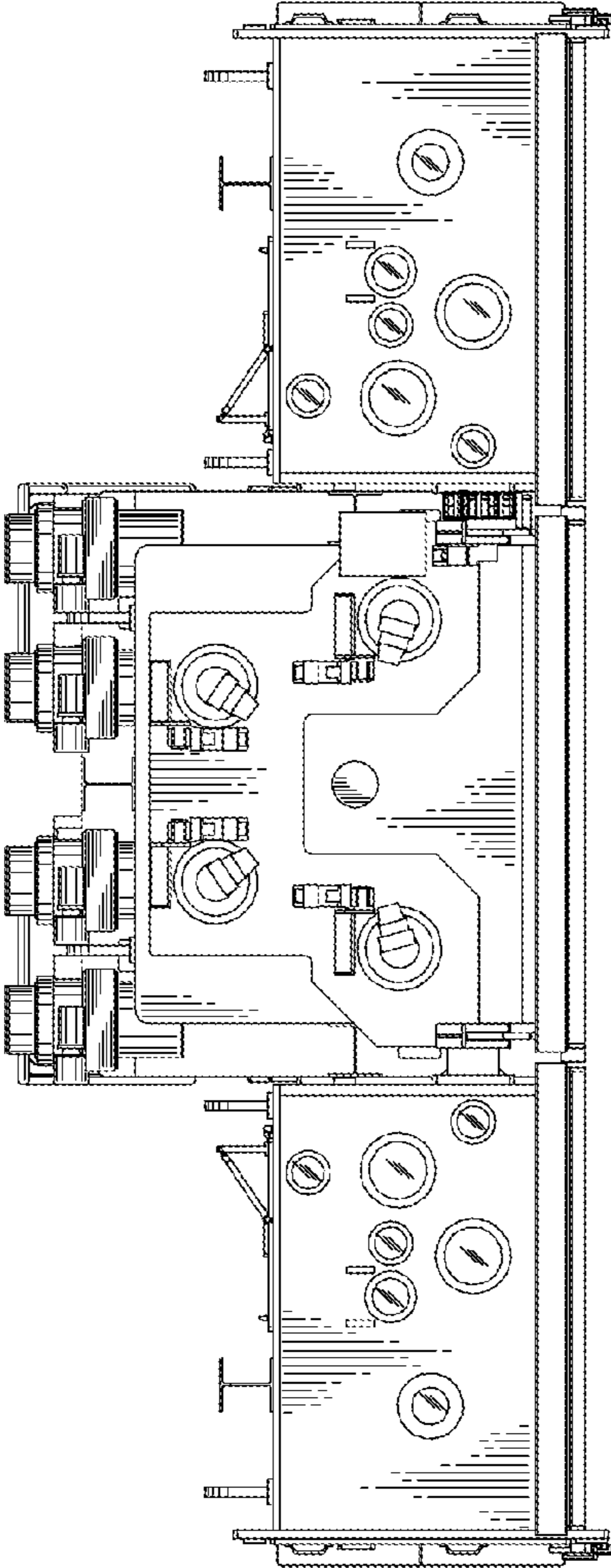
**FIG. 1**



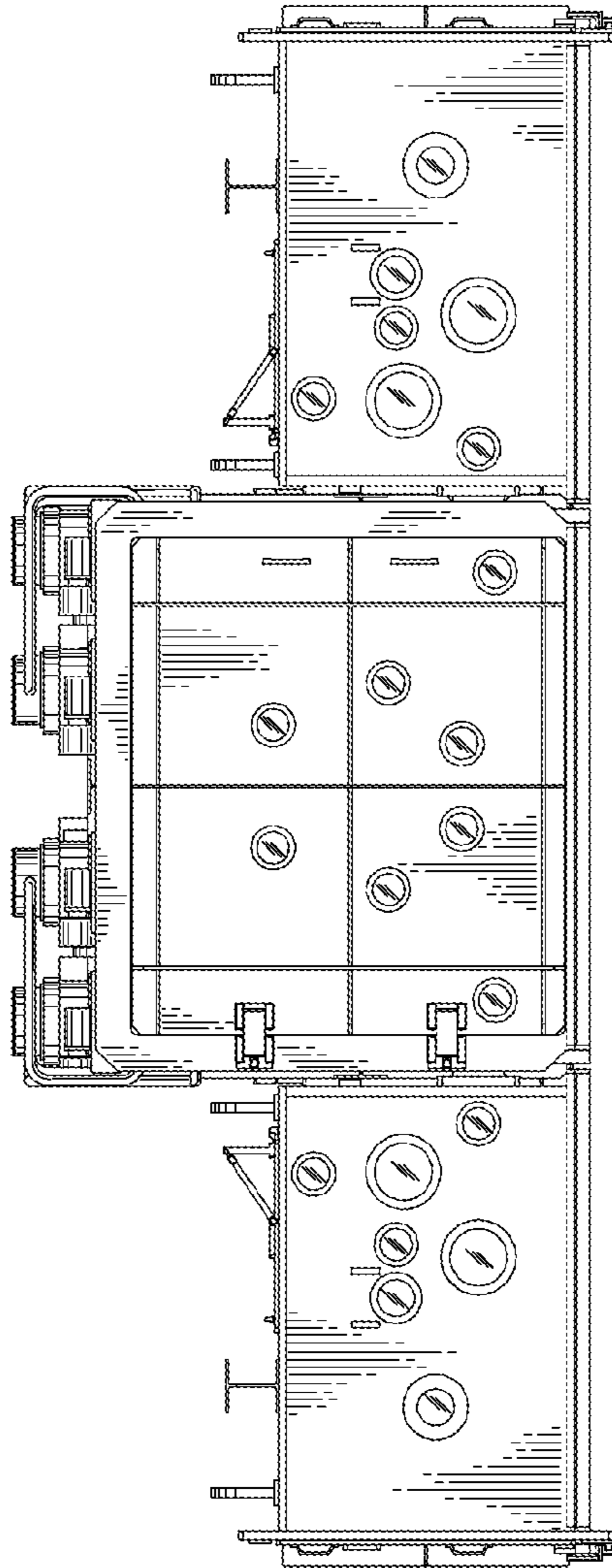
**FIG. 2**



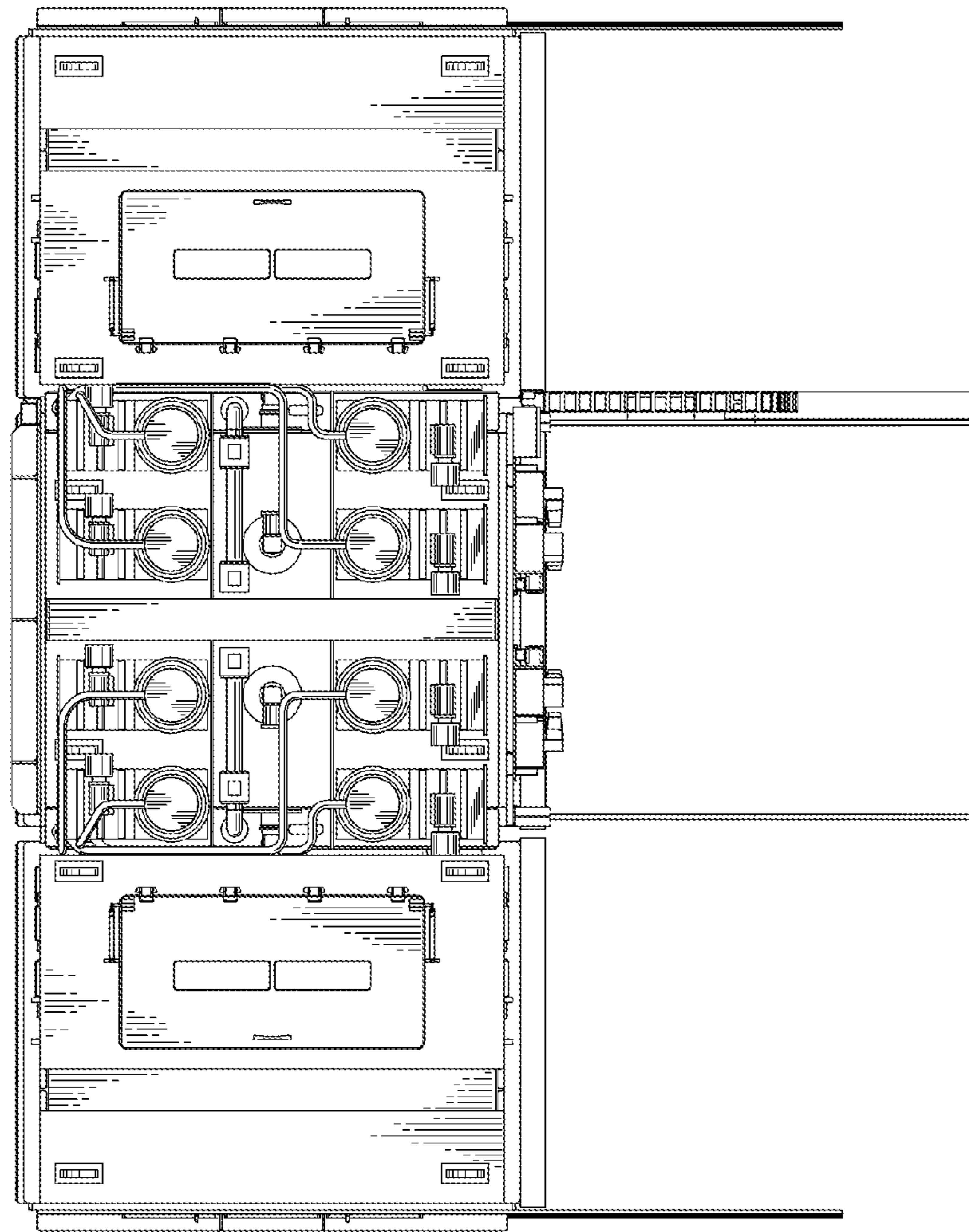
**FIG. 3**



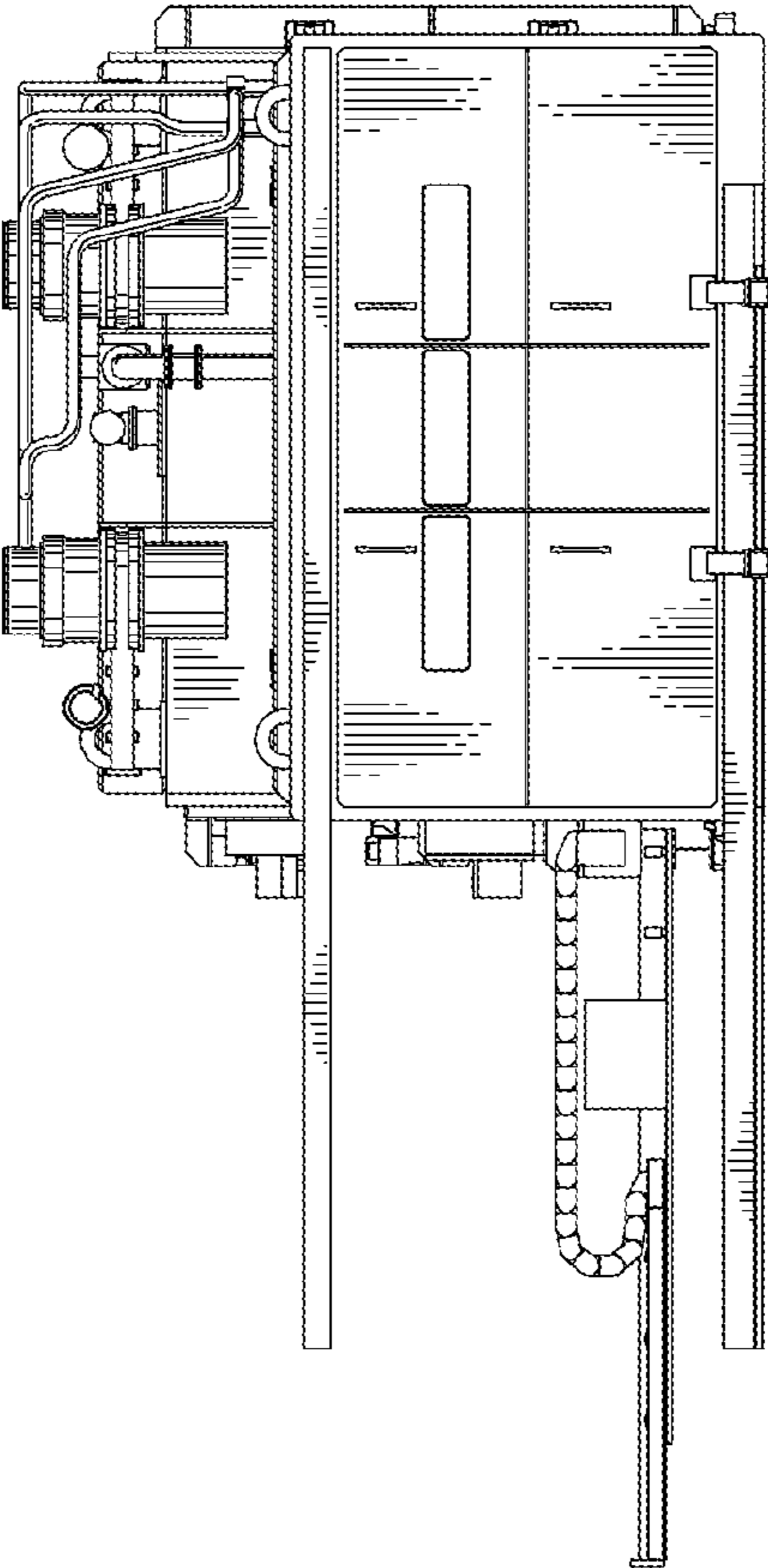
**FIG. 4**



**FIG. 5**



**FIG. 6**



**FIG. 7**

