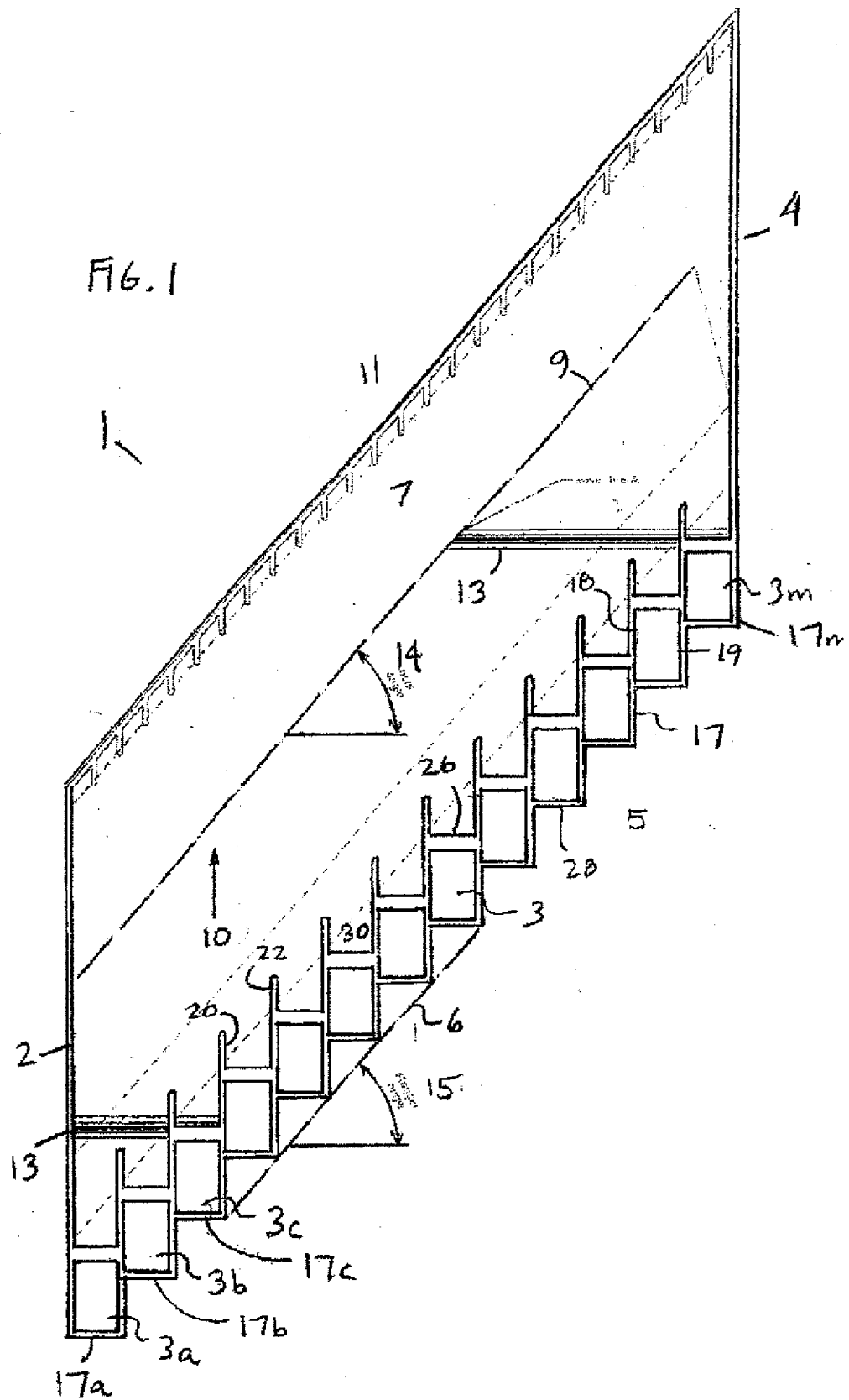
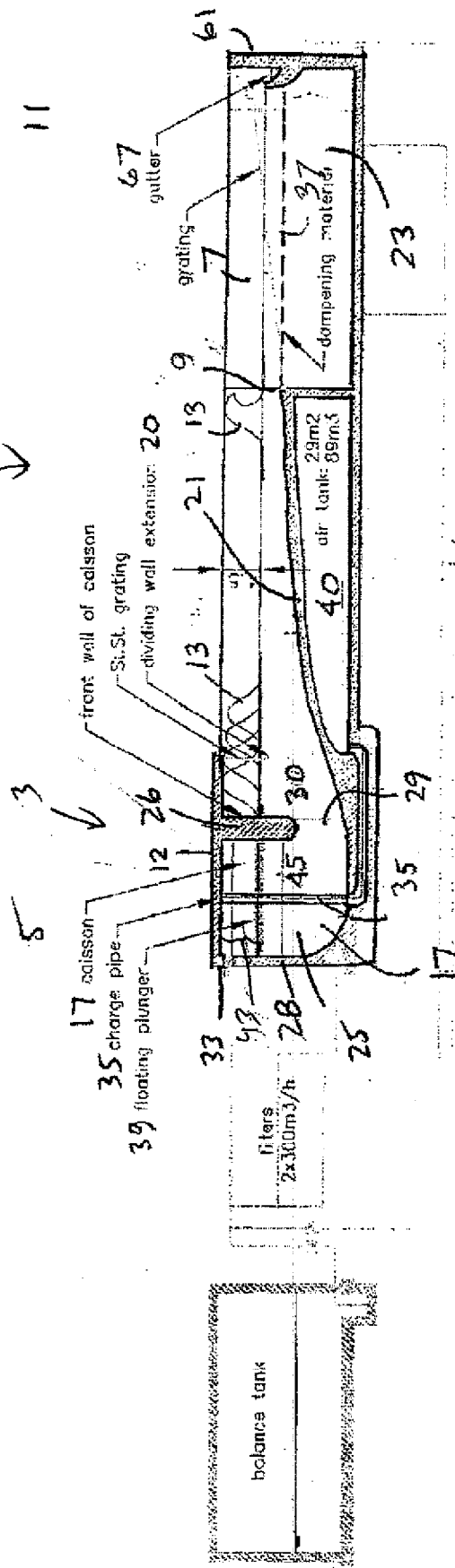
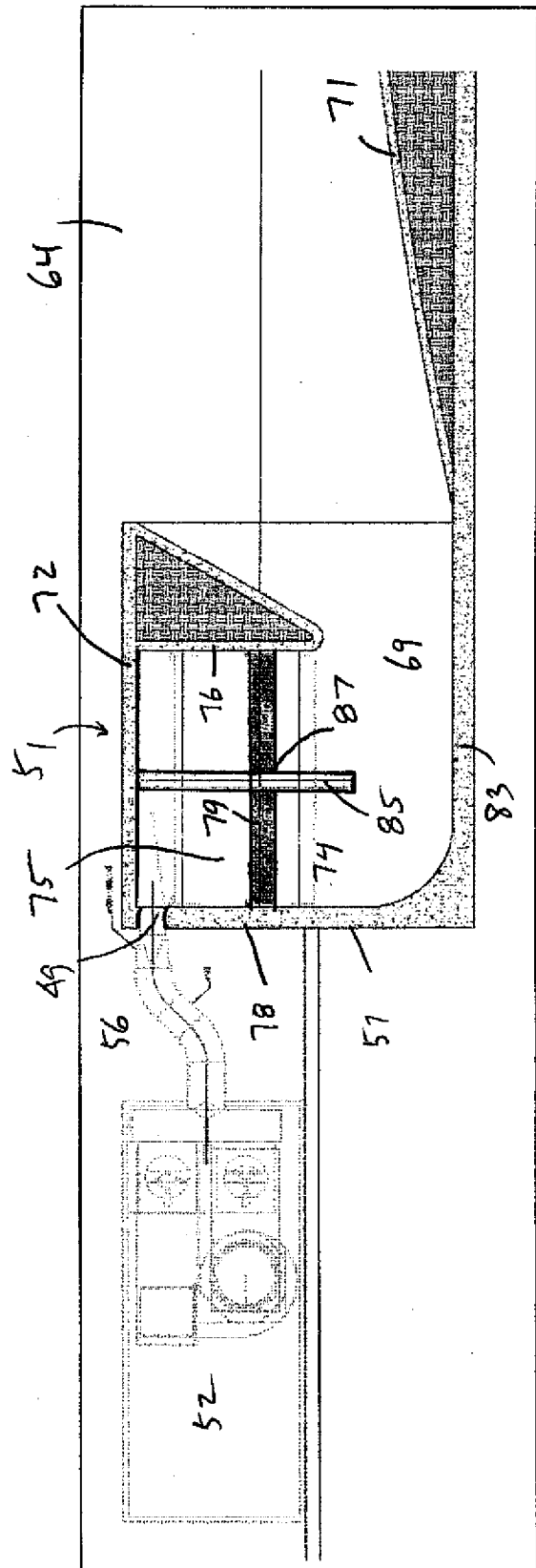
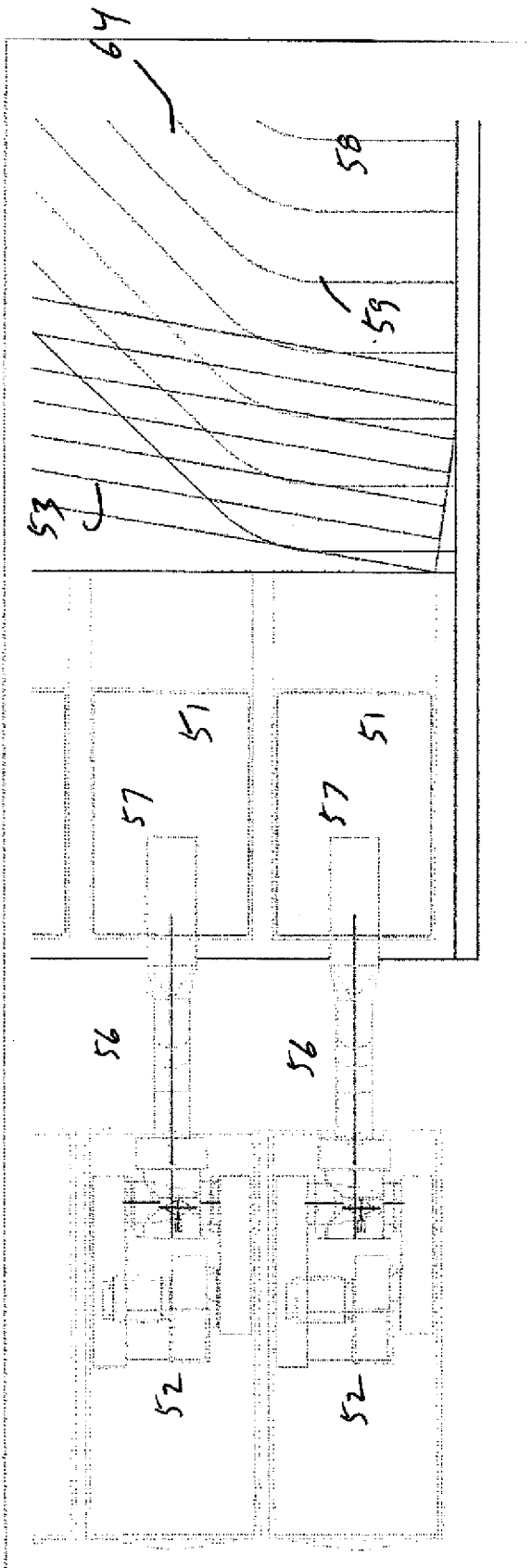




Flb. 2





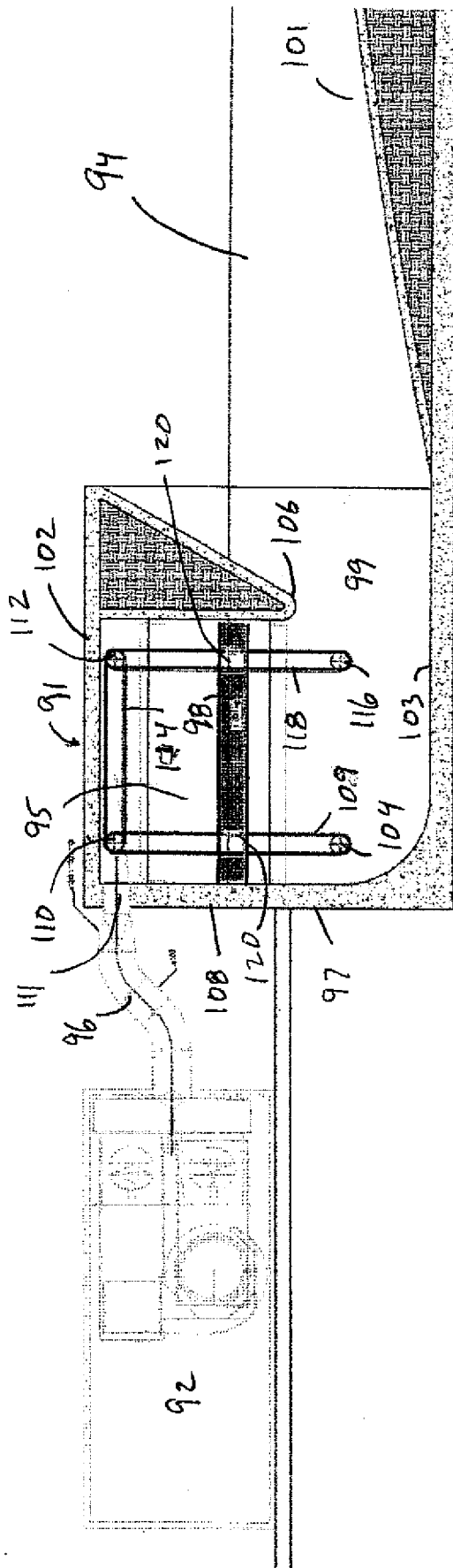


FIGURE 5

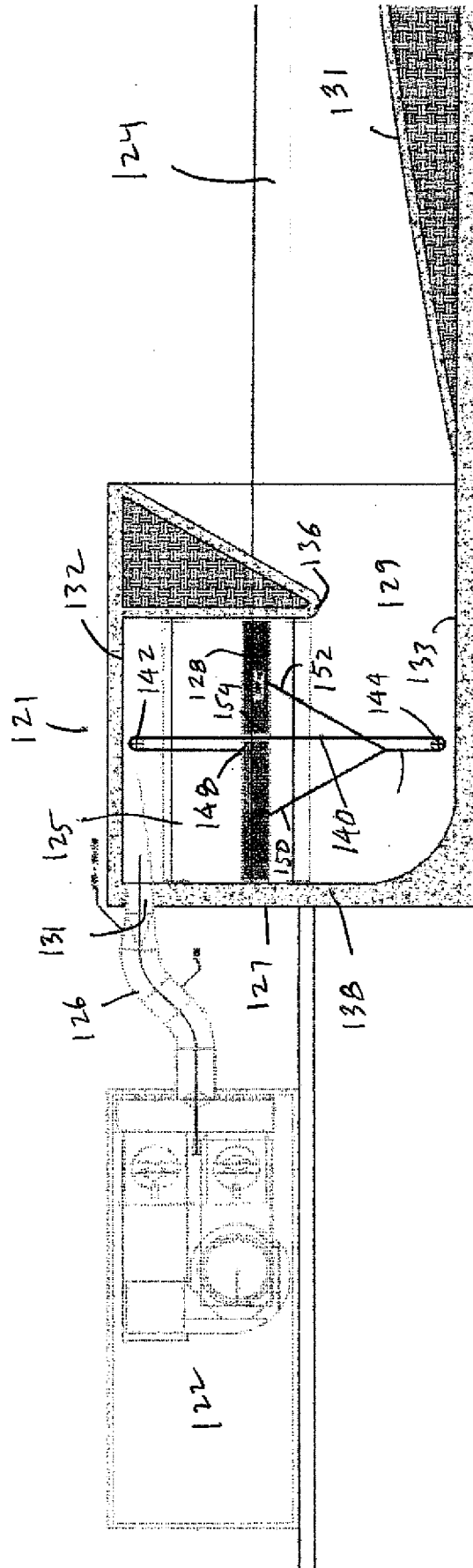


FIGURE 6

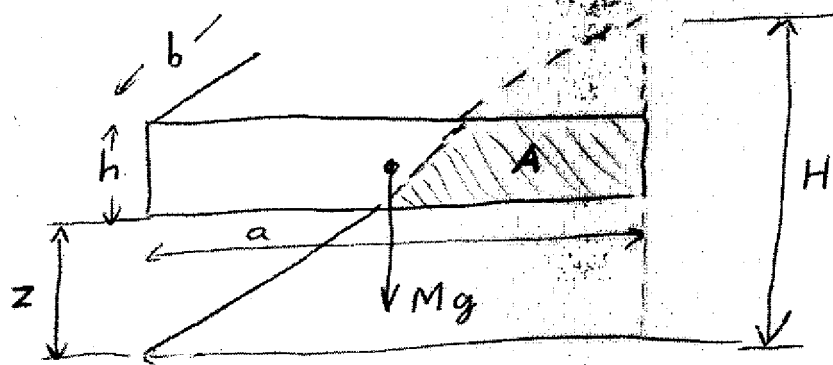


FIGURE 7

$$A = a \times h \times \left(1 - \frac{z}{H} - \frac{1}{2} \times \frac{h}{H}\right)$$

$$F^+ = e \times g \times A \times b = e \times g \times a \times h \times \left(1 - \frac{z}{H} - \frac{1}{2} \times \frac{h}{H}\right) \times b$$

$$F^- = M \times g = \bar{e}_p \times a \times b \times h \times g$$

$$F^+ = F^-$$

$$\therefore e \times g \times a \times b \times h \times \left(1 - \frac{z}{H} - \frac{1}{2} \times \frac{h}{H}\right) = \bar{e}_p \times a \times b \times h \times g$$

$$\therefore e \times \left(1 - \frac{z}{H} - \frac{1}{2} \times \frac{h}{H}\right) = \bar{e}_p \times \frac{h}{h}$$

at rest:

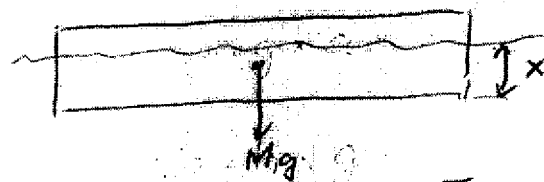


FIGURE 8

$$Mg = a \times b \times x \times e \times g \Rightarrow \bar{e}_p \times h = e \times x$$

$$\text{or: } \bar{e}_p = e \times \frac{x}{h}$$

$$\therefore \left(1 - \frac{z}{H} - \frac{1}{2} \times \frac{h}{H}\right) = \frac{x}{h}$$

$$\text{for } z = 0 \text{ and } \frac{x}{h} = \frac{2}{3} \Rightarrow 1 - \frac{z}{H} - \frac{x}{h} = \frac{1}{2} \times \frac{h}{H}$$

$$\therefore 2H \times \left(1 - \frac{z}{H} - \frac{x}{h}\right) = h \Rightarrow h = \frac{2}{3}H$$