

It is suggested that  $2.15 \text{ m/s}^2$  be regarded as the emergency rate of retardation when arresting full load descending into shaft bottom from a mid-shaft overspeed trip at the front or tip of the overspeed retarding cam.

#### APPENDIX II (See Fig B)

This well-known design may be regarded as a two leading shoe caliper brake in which for anti-clockwise rotation:

For the RH post:

$P_1$  is the anchor pin and brake force is applied at  $P_2$ .

For the LH post:

$P_3$  is the anchor pin and brake force is applied at  $P_4$ .

The braking torque per pair of posts becomes:

$$T = \mu C^2 (2K_L)(\cos \alpha - \cos \beta)$$

where

$$K_L = \frac{FD}{CZ \left( \frac{\beta - \alpha}{2} + \frac{\sin 2\alpha - \sin 2\beta}{4} \right) - \mu C \left( \frac{Z}{4} (\cos 2\beta - \cos 2\alpha) + (\cos \alpha - \cos \beta) \right)}$$

and

$$Z = \sqrt{A^2 + B^2}.$$

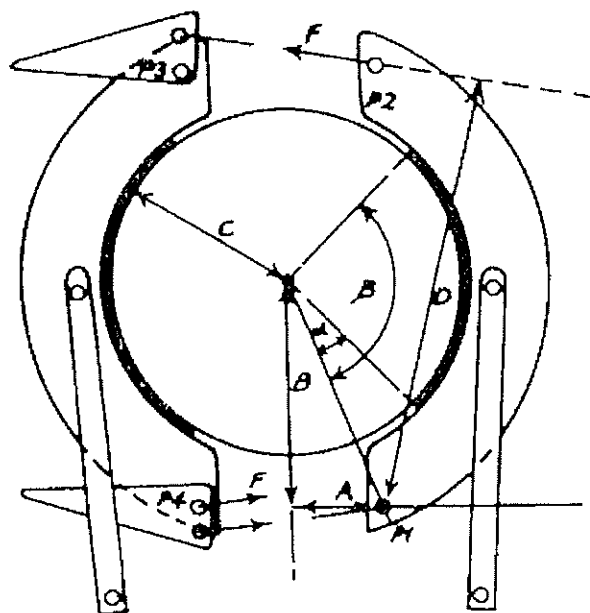


Fig B