

therefrom, and represents the beginning of a development in the line of improved fall rope carriers. As will be observed an auxiliary rope, about  $\frac{5}{8}$  in. in diameter, is suspended above the main cable, held in a parallel position to the main cable by passing under wheels in the cable carriage. On this rope a series of buttons are secured, whose diameter increases with the distance from the head tower. Slots in the head of the carriers, corresponding to the diameter of the buttons, allow each of the carriers, in passing down the incline, to be stopped at its proper button. These carriers have small wheels to roll on the auxiliary or button rope. Thus, the heavy, cumbersome chains are dispensed with, and these fall rope carriers, spaced by buttons, and weighing in all

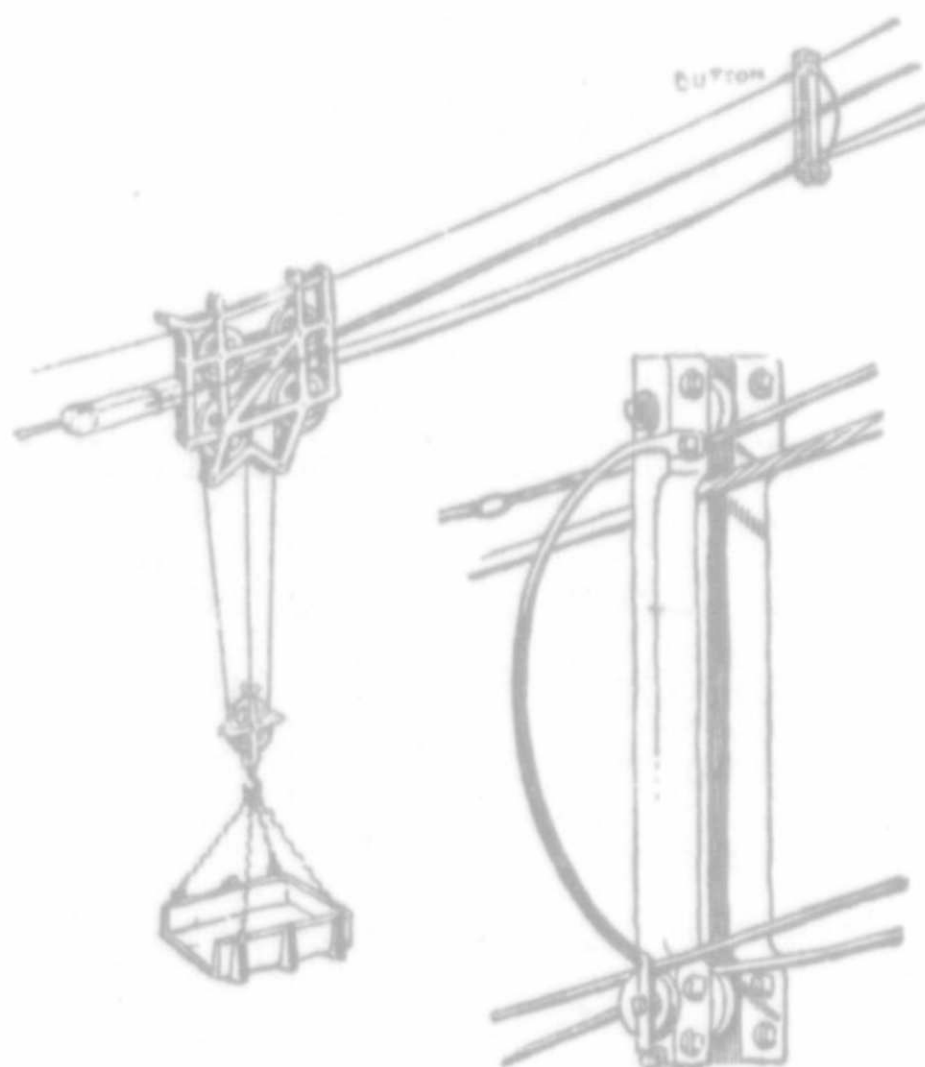


FIG. 4.—First Form of Miller Carrier.

about 100 lbs., answer all the requirements of chain connected carriers, weighing, with the chain, 2,000 lbs., the latter causing an increased strain on the anchorage of about five tons.

The button stop fall rope carrier was next applied to a horizontal cableway of 855 ft. span. Means had to be provided for drawing the fall rope carrier out with the carriage, as gravity was not to be depended upon as in the last case. To this end a horn was placed upon the carriage, which served the twofold purpose of lifting the carriers bodily from the cable, thus dispensing with wheels on which the carrier might