The safety device for deepening vertical shafts contains pulleys fixed along the perimeter of the cross-section of the barrel, suspended on the ropes through the pulleys of the shock-absorbing element and placed under the cushioning element of the support pole. Pulleys are fixed in niches made around the perimeter of the barrel. The cushioning element consists of the upper and lower buffer plates, which are suspended to different ends of the ropes with the possibility of simultaneously moving the upper buffer element down, and the lower buffer element upwards. The masses of buffer plates are from the ratio:

$m_{+}m_{in} = m_{n,}$ where:

m_c – the mass of a skip or a cage, the fall of which is likely when deepening the barrel,

m_{in} - the mass of the upper buffer plate,

m_n – the mass of the lower buffer plate.