

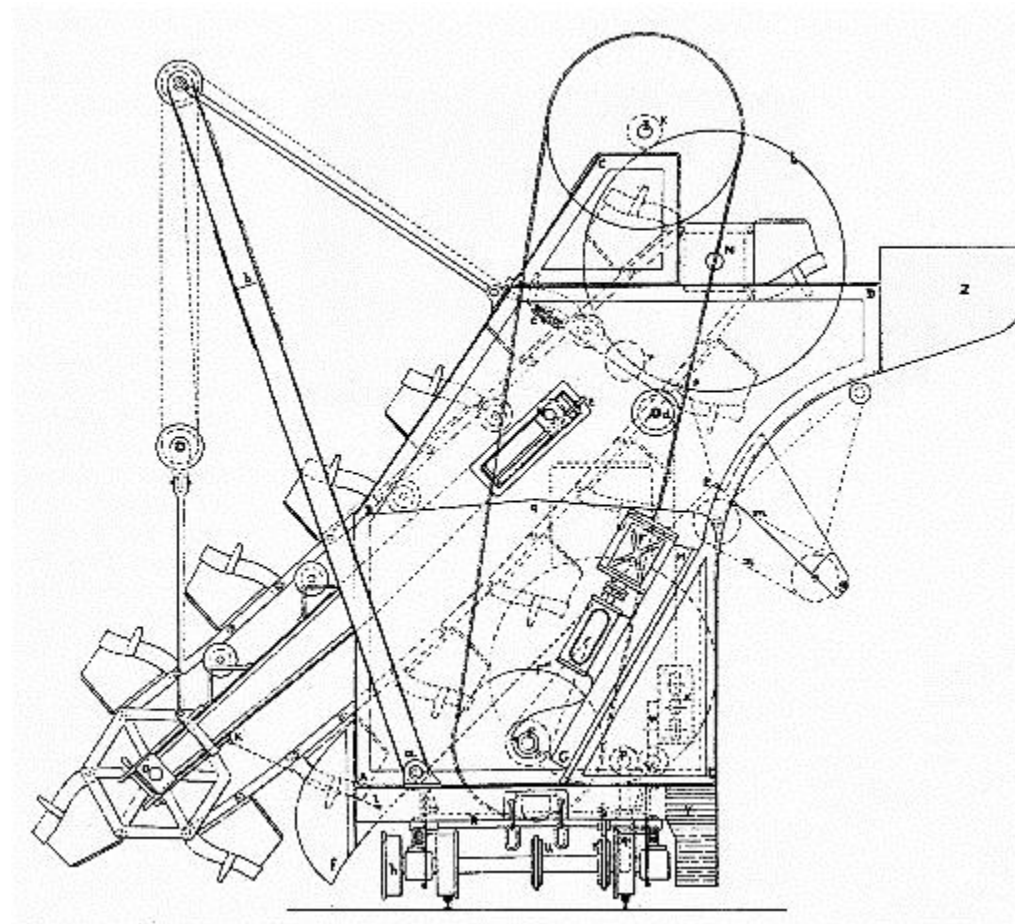
The French Excavator



The “French” Excavator by Ronald DeHeer

Blueprint of “French” Excavator

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During French construction era, the Compagnie Universelle de Canal Interocéanique de Panama was face with a big problem of finding enough manpower and equipment to do the work. Contractors were

paid by the per cubic meter, whereby the unit rate depended upon the hardness of the soil or rock being excavated.

Culebra Cut was excavated by an Anglo-Dutch consortium. The soil at the cut consisted of loam and slate, and therefore a higher rate could be charged than that for dredged material but less than for rock. In order to speed up the work at Culebra, engineer Dresselhuis designed an excavator eleven meters long and three meters wide. The drive of this excavator moved along over railroad track and was powered by two steam engines, one 70 horsepower and one 25 horsepower. The big engine was used for the excavation, the small one for moving the excavator along the track and to adjust the position of the ladder. On the machine special measures were fitted to cut the soil and to prevent the sticky clay from adhering to the buckets. Depending on the hardness of the soil, three to eight meters per minute were produced.

Source: De Ingenieur ('The Engineer'), 1886, no. 12, 26, 45, 46, and 1888, No 8. (Papercut TU-magazine 'Delta'). Text in Dutch.

For more information about Dutch dredging visit <http://baggermuseum.nl/Tentagenda.html>