

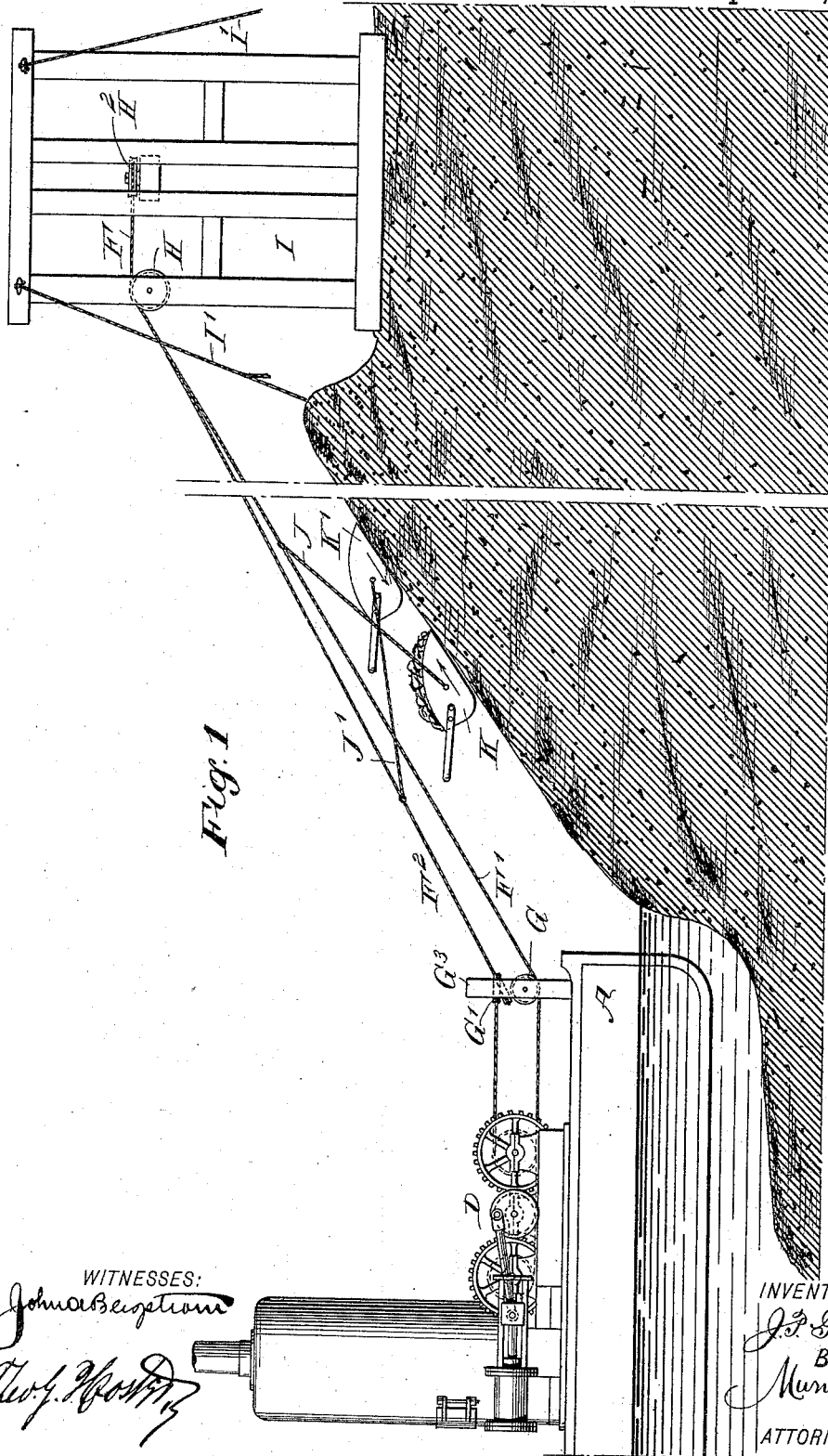
(No Model.)

2 Sheets—Sheet 1.

J. P. GRIFFIN.  
EXCAVATOR.

No. 526,226.

Patented Sept. 18, 1894.



WITNESSES:  
*John A. Beaton*  
*Thos. W. Wood*

INVENTOR  
*J. P. Griffin*  
BY  
*Munn & Co*  
ATTORNEYS.

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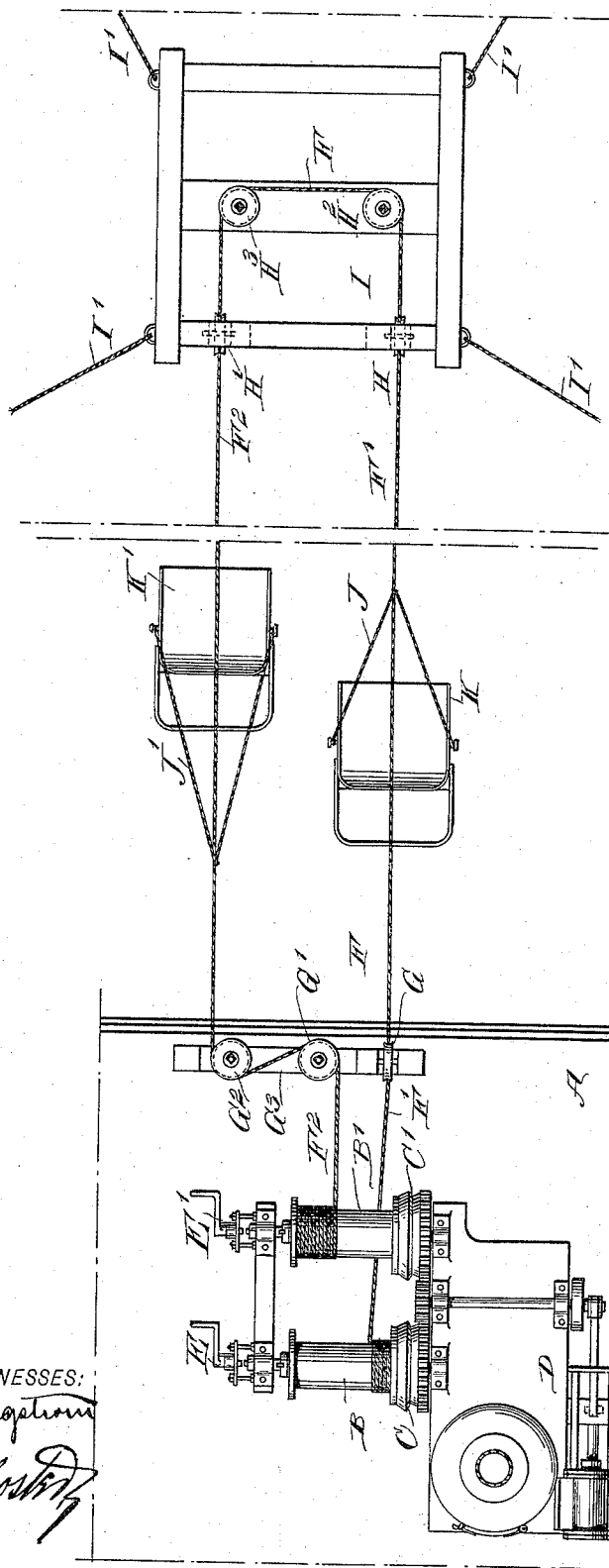


Fig. 2

WITNESSES:

*John A. Bergstrom*  
*Thos. J. Post*

INVENTOR

*J. P. Griffin*

BY *Munn & Co*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHN PATRICK GRIFFIN, OF ST. LOUIS, MISSOURI.

## EXCAVATOR.

SPECIFICATION forming part of Letters Patent No. 526,226, dated September 18, 1894.

Application filed May 12, 1894. Serial No. 510,973. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN PATRICK GRIFFIN, of St. Louis, Missouri, have invented a new and Improved Excavator, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved excavator, which is simple and durable in construction, very effective in operation, and more especially designed for use on rivers to form embankments, &c.

The invention consists in certain parts and details, and combinations of the same, as will be hereinafter described and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both views.

Figure 1 is a side elevation of the improvement as applied; and Fig. 2 is a plan view of the same.

On a suitably constructed boat A, are arranged the drums B and B', adapted to be connected by clutches C and C' respectively, with the driving gear D of an engine or other motor located on the boat. The mechanisms E and E' for throwing the drums B and B' respectively into and out of mesh with the driving gear, may be of any approved construction and under the control of the operator standing on the deck of the boat A.

On the drums B and B' wind the ends of a rope F, extending forwardly over pulleys G, G', G<sup>2</sup>, held in a suitable framework G<sup>3</sup> erected on the stern of the boat, as plainly shown in the drawings. The runs F' and F<sup>2</sup> of the rope F are by the arrangement of the pulleys, held suitable distances apart, as will be readily understood by reference to Fig. 2, and the said runs F' and F<sup>2</sup> then extend from the river up the embankment, to pass over pulleys H, H', H<sup>2</sup>, H<sup>3</sup>, journaled in a suitable framework I, set on the embankment and securely held in place by anchor ropes I' or other devices. The framework I is so arranged that when the anchor ropes are loosened, the framework can be conveniently shifted along the embankment relative to the position of the boat A, to form the embankment throughout its length.

On the runs F' and F<sup>2</sup> of the rope F, are attached the branch ropes J and J', connected with shovels or scrapers K and K' respectively, of any approved construction. Now, it will be seen that when the engine is in motion, then the operator can manipulate the shifting devices E and E' in such a manner that one of the runs F' or F<sup>2</sup> is wound up on its corresponding drum B or B', while the other run unwinds therefrom, so that one of the shovels K or K' moves forward to fill, while the empty scraper returns, that is, travels in an opposite direction to the filled scraper. When the scrapers come to the end of their travel the operator reverses the motion of the drums B and B', by throwing one out of gear and the other into gear, which causes the rope F to travel in an opposite direction, to permit the operator to fill the returned empty shovel or scraper, and to drag the load forward, while the other previously emptied shovel or scraper returns to the point of starting. Thus it will be seen that the scrapers or shovels K and K' travel in opposite directions, and are alternately filled and emptied and returned to their place of starting.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

An excavating apparatus comprising a float or platform A, a motor thereon, parallel drums B, B' geared to the motor, clutch mechanism E E' for throwing the drums into and out of gear with the motor, a frame work G<sup>3</sup> on the float or platform in front of the drums and provided with guide pulleys G G' G<sup>2</sup>, a shore frame-work I provided with vertical guide pulleys H H' and horizontally turning guide pulleys H<sup>2</sup> H<sup>3</sup> in rear thereof, an operating rope or cable secured to drum B and extending under pulley G over pulley H around pulleys H<sup>2</sup> H<sup>3</sup>, thence around pulley G<sup>2</sup> and outwardly around pulley G' and thence to drum B', and the shovels connected with said rope or cable, substantially as described.

JOHN PATRICK GRIFFIN.

Witnesses:

J. C. BORGSTED,  
E. H. BAILEY.