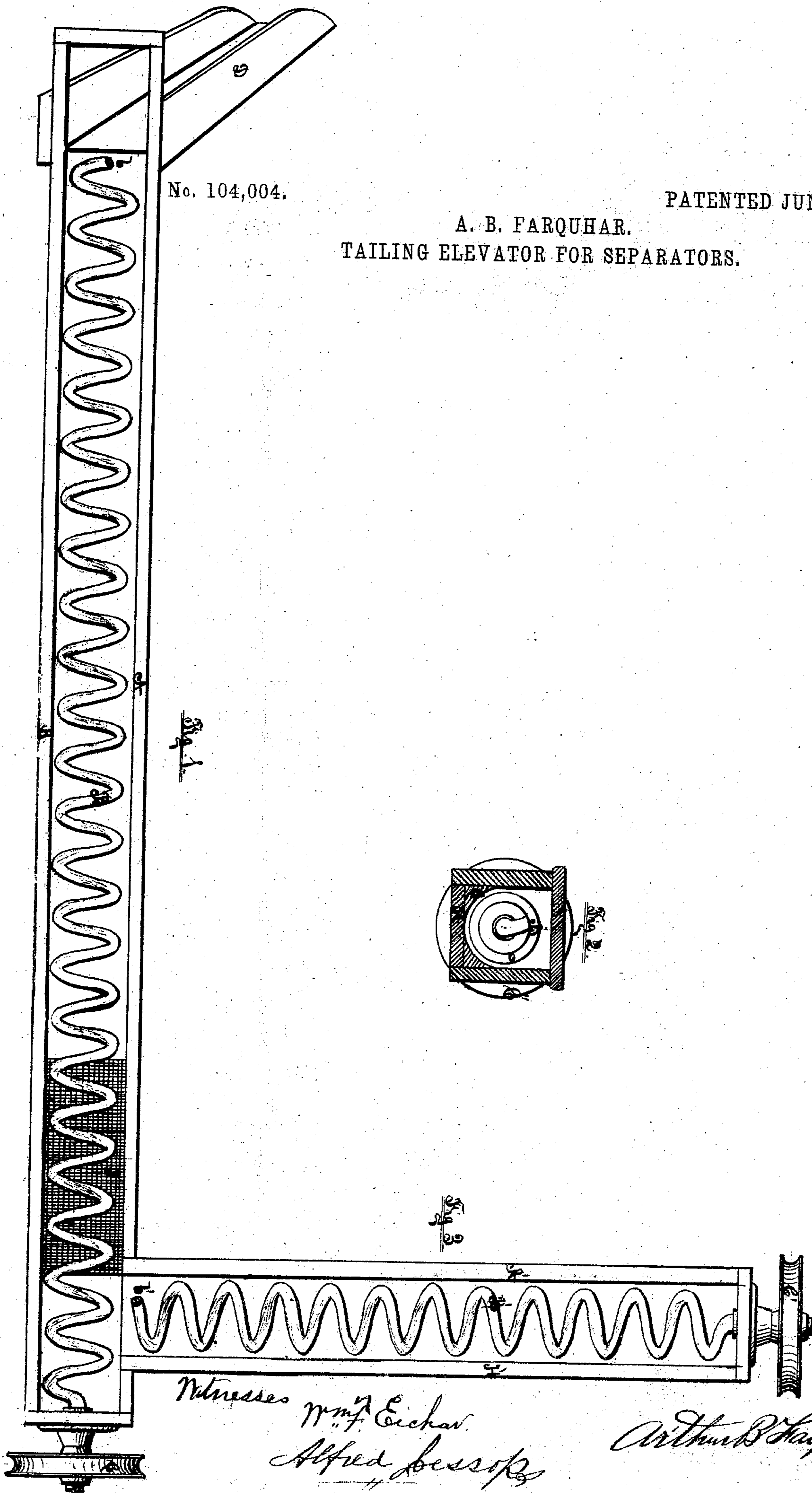


No. 104,004.

PATENTED JUNE 7, 1

A. B. FARQUHAR.  
TAILING ELEVATOR FOR SEPARATORS.



# United States Patent Office.

ARTHUR B. FARQUHAR, OF YORK, PENNSYLVANIA.

*Letters Patent No. 104,004, dated June 7, 1870.*

## IMPROVEMENT IN TAILING-ELEVATORS FOR SEPARATORS.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, ARTHUR B. FARQUHAR, of York, in the county of York and State of Pennsylvania, have invented new and useful Improvements in "Tailing-Elevators" for conveying material known as tailings from the fan back to the thrasher of a grain-separator; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making part of this specification, in which—

Figures 1 and 3 are a top view or plan, and Figure 2, a vertical section.

My improvements are divided into several parts, which may be used separately or in connection, and which may be applied to machines of similar class heretofore in use.

The nature and novelty of my invention consists in the arrangement of a helix (or spiral screw) in a trough or pipe, for conveying the white caps and unthrashed heads of grain (technically styled tailings) from the fan back to the thrasher of a grain-separator, and, by means of a screen in bottom of said trough, separating therefrom the cockle and dirt.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The elevating-trough A H rests at one end near the fan, the other being raised sufficiently to discharge through spout D into the thrasher.

The tailings may be delivered from the fan into the elevator in the usual manner by a shaking spout, but this arrangement being very temporary and liable to choke in wet grain, I prefer using another trough and helix, as shown in fig. 3, opening into the elevator at right angles, thus obviating the possibility of choking.

The helices are readily formed by winding half-inch

round or square iron over a revolving mandrel in an ordinary engine-lathe, allowing one end to extend out far enough to receive the driving-pulley C.

The power required to operate it is scarcely appreciable. The tailings are carried up inside of the coil, and are discharged evenly into the thrasher. Most of the cockle, chaff, and other impurities pass through the screen F into a box below, the screen being kept clear and open by the revolving helix or screw rubbing over it.

Nine out of every ten grain-separators in use are provided with tailing-elevators made of a series of buckets or blocks fastened to a revolving belt, and they are the most troublesome part of the machine, from liability to get out of order and choke up.

Now, it will be readily seen that these objections are entirely overcome by my improvement, since the iron coil will last a lifetime, and cannot get out of order or choke up, besides costing less than half as much to make as the old style.

I may add, in conclusion, that I have thoroughly tested its operations during the past season upon a number of machines, and the universal testimony of experienced thrashers encourages me to present my claims for what I deem as novel as they have been proved useful.

I do not claim the several parts herein shown, nor any general combination of the same; but

What I do claim is—

The arrangement of the trough A and helix B with trough H, helix B, screen F, and spout D, as herein described and for the purposes set forth.

ARTHUR B. FARQUHAR.

Witnesses:

WM. F. EICHAR,  
ALFRED JESSOP.