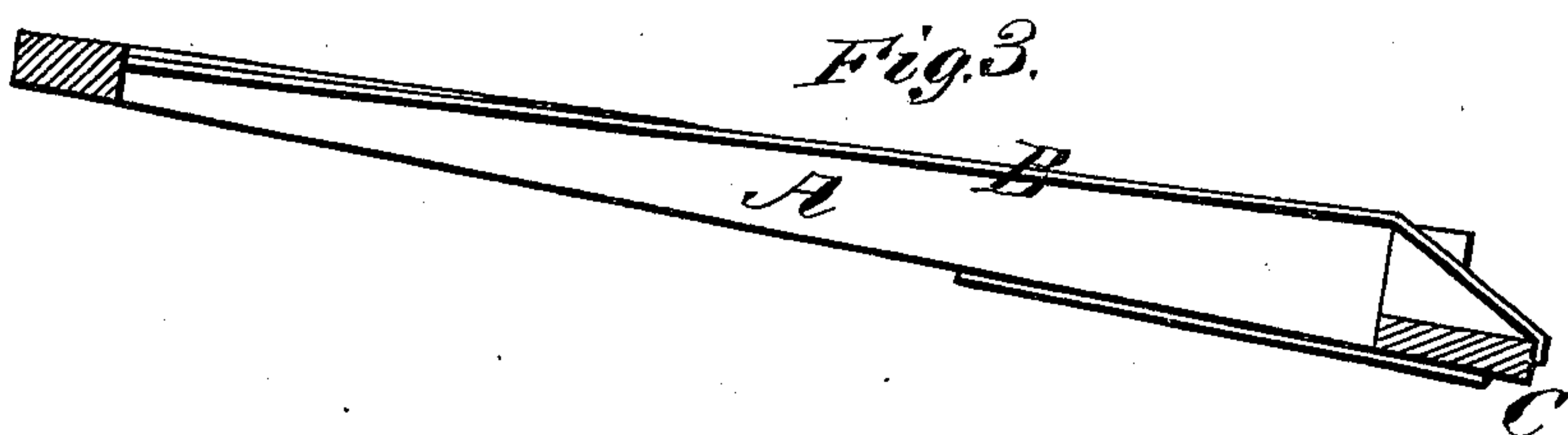
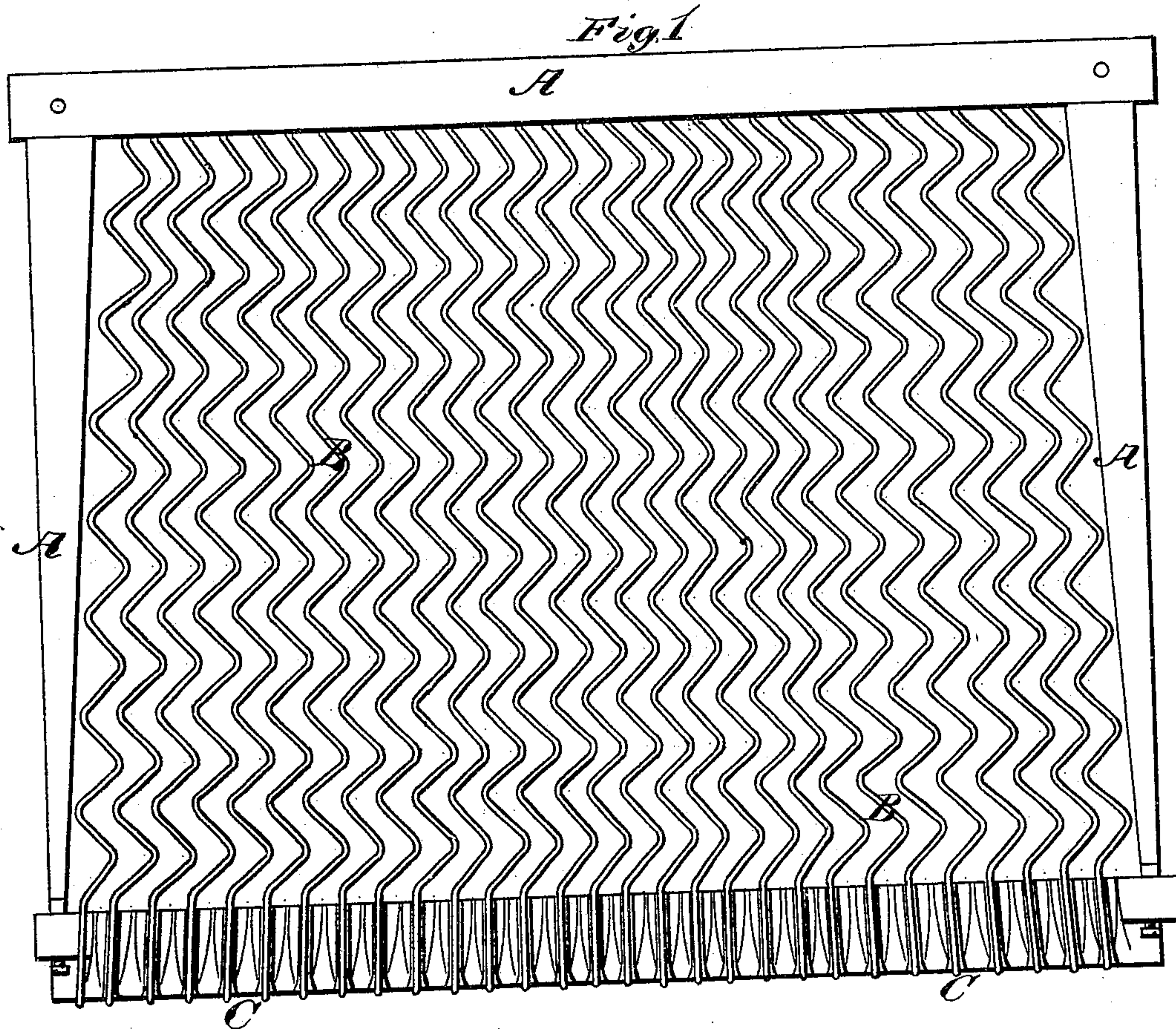


J. C. LEESON.
GRAIN-SCREEN.

No. 174,828.

Patented March 14, 1876.



WITNESSES

Robert Everett
George W. Larner.

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UNITED STATES PATENT OFFICE.

JOHN C. LEESON, OF LEON, IOWA.

IMPROVEMENT IN GRAIN-SCREENS.

Specification forming part of Letters Patent No. **174,828**, dated March 14, 1876; application filed February 25, 1876.

To all whom it may concern:

Be it known that I, JOHN C. LEESON, of Leon, in the county of Decatur and State of Iowa, have invented a new and valuable Improvement in Grain-Screens; 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 a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my screen, and Fig. 2 is a front view of the same. Fig. 3 is a longitudinal vertical sectional view thereof.

This invention has relation to screens for separating grain, oats, &c., from their impurities; and the nature of my invention consists in the employment of crimped wire, as will be hereinafter explained.

Prior to my invention wire has been crimped for the purpose of screening grain; but I am not aware that separated crimped wires have been employed in the manner which I will hereinafter explain.

In the annexed drawings, A designates the frame of my screen, which may receive motion laterally or longitudinally, or both. To this frame I attach wires B of any suitable diameter, which are crimped or corrugated, and which are secured at their ends to the frame in any suitable manner. The wires are arranged side by side in parallel lines, leaving suitable spaces between them, respectively, for the passage of the screened grain downward, and the curves of each wire are adapted to fit the curves of its fellow, in the manner represented on the drawings, leaving no corners or cross-wires for the lodgment of any substance thereon whatever.

It will be obvious from what I have above said that my riddle will not clog, for the reasons, first, that all of the wires are on the same plane; second, that there are no crossed wires; third, that the angles of the wire with respect to a transversed line intercept each other; fourth, in a given length of wire there is greater vibration than in single straight

wires, which necessarily shakes through the grain and separates the foreign matter from it.

My screen is preferably constructed in such manner that its lower or delivery end shall be wider than its upper or receiving end, the wires thereof gradually diverging from the top to the bottom, as represented on the drawings. This method of construction is designed to provide for a more ready passage for the grain through the screen toward the bottom than at the top. It is well known that straw, chaff, and grain are first delivered upon the screen near its top in a body, and that straw will often fall upon it endwise. Now, if the interstices of the wires be large enough, the straw falling upon it endwise will pass through; hence the necessity of making the spaces between the wires less in size at the top than at the bottom. When the straw has assumed a horizontal position upon the screen it will easily be carried downward over the enlarged spaces, and passed off at the foot of the screen.

I usually construct the lower end or foot of the screen in such manner that it shall form grooves in the frame on a line with the wires, as shown in the drawings. This method of construction is designed to afford ready means for the passage of the straw and chaff from the screen.

In the accompanying drawings the frame proper is marked A, the corrugated wires B, and the grooved foot of the frame C.

What I claim as new, and desire to secure by Letters Patent, is—

1. A grain-screen composed of a series of parallel corrugated wires arranged in the same plane, substantially as shown and described.

2. In a grain-screen, the grooved foot-piece C, constructed and arranged, with relation to the wires, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN C. LEESON.

Witnesses:

A. DILSAVER,
J. L. HARVEY.