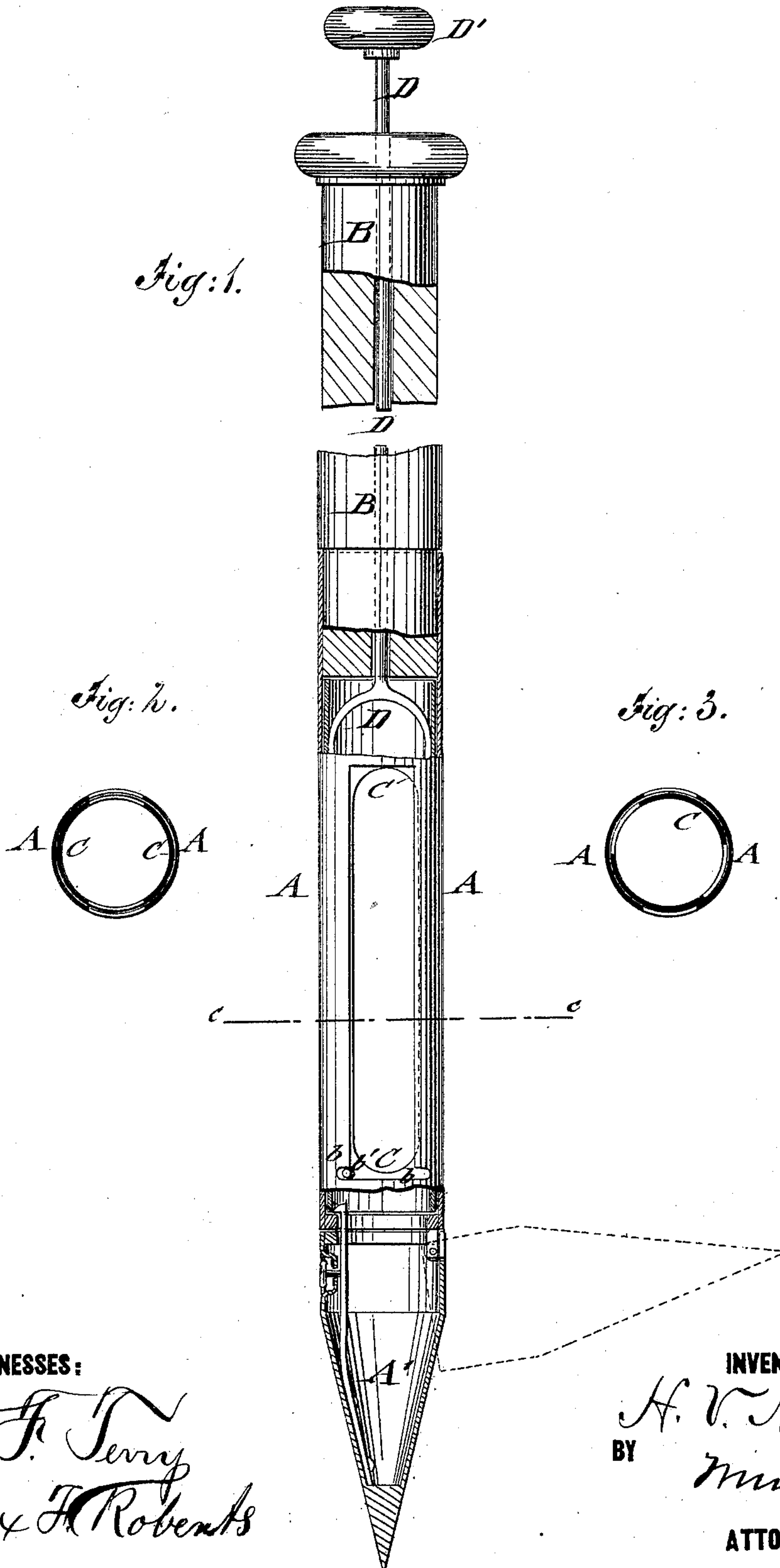


H. V. NELSON.
GRAIN-SAMPLER.

No. 176,038.

Patented April 11, 1876.



WITNESSES:

A. F. Terry
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INVENTOR:

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UNITED STATES PATENT OFFICE.

HENRY V. NELSON, OF NEW YORK, N. Y.

IMPROVEMENT IN GRAIN-SAMPLERS.

Specification forming part of Letters Patent No. **176,038**, dated April 11, 1876; application filed September 25, 1875.

To all whom it may concern :

Be it known that I, HENRY V. NELSON, of the city, county, and State of New York, have invented a new and Improved Grain-Sampler, of which the following is a specification :

In the accompanying drawing, Figure 1 represents a side elevation, partly in vertical central section, of my improved grain-sampler, and Figs. 2 and 3 are, respectively, horizontal sections of the same on the line *c c*, Fig. 1, one showing the sampler open for taking up grain, the other showing the same closed.

Similar letters of reference indicate corresponding parts.

The invention consists in a grain-sampler, made of two apertured tubes, of which one turns within the other, while a hinged point constitutes the bottom of main tube, an easy mode of discharging the grain being thus provided.

In the drawing, A represents an outer socket-tube, with stationary or hinged, pointed end A', which socket-tube is attached firmly to the end of a handle or stock, B, of such length that it reaches down to the lowest point of a boat or other receptacle in which the grain is stored. The socket-tube A is made of the customary size and shape to take up a certain quantity of grain, and slotted at opposite sides to admit the grain to the interior thereof. A second tube, C, is fitted closely within the outer socket-tube, and either provided with slots *a* of the same size as those of the outer socket-tube, to be used by turning within the same, or made without slots, to be slid in the outer socket-tube back to the full length of the slots. In both cases the extent of turning or drawing back of the interior tube is defined by recesses *b* and stop-pins *b'*. The inner tube C is riveted to the forked end of a rod, D, that passes centrally through a longitudinal perforation of the stock. The inner tube is worked by a knob,

D', at the upper end of the central rod, a similar knob at the end of the stock serving to take hold of the sampler during the working of the same. The stock is graduated to be inserted to any depth of grain into the boat, when examining the condition and quality of the grain therein, and the socket-tube opened when inserted to the required depth by turning or sliding the interior tube, allowing the grain to enter and fill the same, the inner tube being then closed again and the whole withdrawn. The grain is taken out either by opening the hinged point or the slots of the socket-tube. The samples of grain may thus be taken in a certain and reliable manner from any part of the boat, which is not possible with the same degree of accuracy with the present samplers, so that the condition of a quantity of grain may thus be correctly probed and the sampling be accomplished with convenience and rapidity.

I am aware that it is not new to make a grain-sampler of a perforated case and inner tube, but the wings in this device prevent the case from filling, and the perforations will not admit grain (like oats) that pack together, while when emptying this device the grain requires to be shaken out by repeated blows. On the other hand, my sampler is operated by turning the governor-rod and rotating the case several times, when the grain enters freely through the opposite slots and is secured by the sliding inner tube, while it is discharged either by the opening of slots or the hinged point.

What I claim is—

A grain-sampler, provided with hinged point, as and for the purpose specified.

HENRY V. NELSON.

Witnesses:

PAUL GOEPEL,
T. B. MOSHER.