

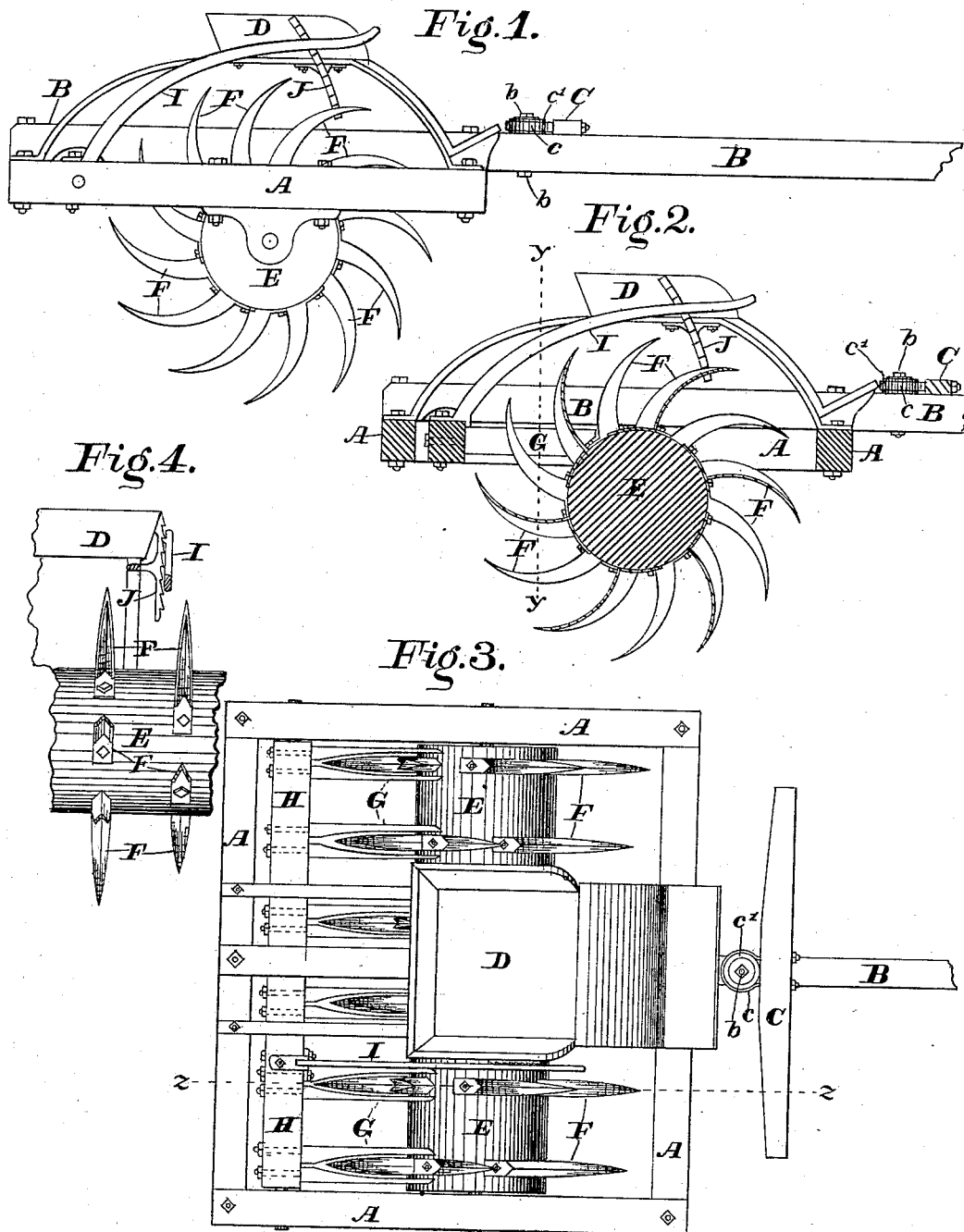
(No Model.)

A. J. COCHRAN.

SOIL PULVERIZER.

No. 265,917.

Patented Oct. 10, 1882.



WITNESSES.

Chas. N. Leonard.
E. W. Bradford

INVENTOR.

Andrew J. Cochran,
PER
C. Bradford.
ATTORNEY.

UNITED STATES PATENT OFFICE.

ANDREW J. COCHRAN, OF INDIANAPOLIS, INDIANA.

SOIL-PULVERIZER.

SPECIFICATION forming part of Letters Patent No. 265,917, dated October 10, 1882.

Application filed June 20, 1882. (No model.)

To all whom it may concern:

Be it known that I, ANDREW J. COCHRAN, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain
5 new and useful Improvements in Soil-Pulverizers, of which the following is a specification.

My said invention consists in certain improvements in the construction of soil-pulverizers, whereby they are rendered more effective
10 in operation.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a soil-pulverizer embodying my improvements; Fig.
15 2, a longitudinal vertical section thereof on the dotted line *z z* in Fig. 3; Fig. 3, a top or plan view of the same, and Fig. 4 a detail transverse vertical section on the dotted line
20 *y y*.

In said drawings, the portions marked A represent the frame-work of my improved machine; B, the tongue or pole thereto; C, the double-tree thereon; D, the seat; E, the body
25 or roller portion of the pulverizer; F, the teeth thereof; G, cleaners for said teeth; H, a shaft to which said cleaners are attached; I, a handle for operating said shaft and cleaners, and J a ratch for holding said handle in position.

30 The frame-work A, pole B, seat D, and roller E are of a common construction and need no special description.

The double-tree C is in itself also of common form. It is connected to the pole B by a
35 a bolt, *b*, and a clip, *c*, which passes around said bolt and enters said double-tree. Interposed between said bolt and said clip is an elastic ring, *c'*, which serves to lighten the strain on the horses in starting, which in a
40 heavy soil-pulverizer like this is quite important.

The teeth F upon the roller E are curved in the direction of the rotation thereof, whereby they are enabled to enter the ground more
45 freely and lift it more thoroughly. This in

itself, I am aware, is not new; but by combining therewith the cleaners and cutters G a new result is produced. As will be noticed by an examination of the drawings, the teeth in cutting any clod, stalk, or other matter between
50 themselves and the cleaners G would commence to exert their cutting or crushing force at the points of the teeth and continue until the operation was concluded at the roots of the teeth, near the roller or body E, where the
55 teeth are the strongest, and where there is less adverse leverage than at or nearer the points. This, as will be readily understood, is very important, as it accomplishes the necessary cutting and crushing with less strain on the machine and a smaller expenditure of power.
60

The cutters G are stout arms projecting forward from the rock-shaft H to nearly or quite in contact with the roller E, and are armed with blades or shears *g*. In operation these
65 blades act as the stationary half of shears, of which the revolving teeth are the other half. As will be readily seen, they may be set at any angle desired by means of the rock-shaft H, lever I, and ratch J, which are utilized and operated in a manner which will be
70 readily understood from the drawings.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—
75

The combination, in a soil-pulverizer, of the frame, the roller, the curved teeth F, the combined cutters and cleaners G, mounted on the rock-shaft H, said rock-shaft, the lever I, and the ratch J, all constructed, arranged, and operating substantially as shown and described,
80 and for the purposes specified.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 15th day of June, A. D. 1882.

ANDREW J. COCHRAN. [L. S.]

In presence of—

C. BRADFORD,
E. W. BRADFORD.