

(No Model.)

W. E. TAYLOR.
PAPER PULP ENGINE.

No. 253,447

Patented Feb. 7, 1882.

Fig. 1.

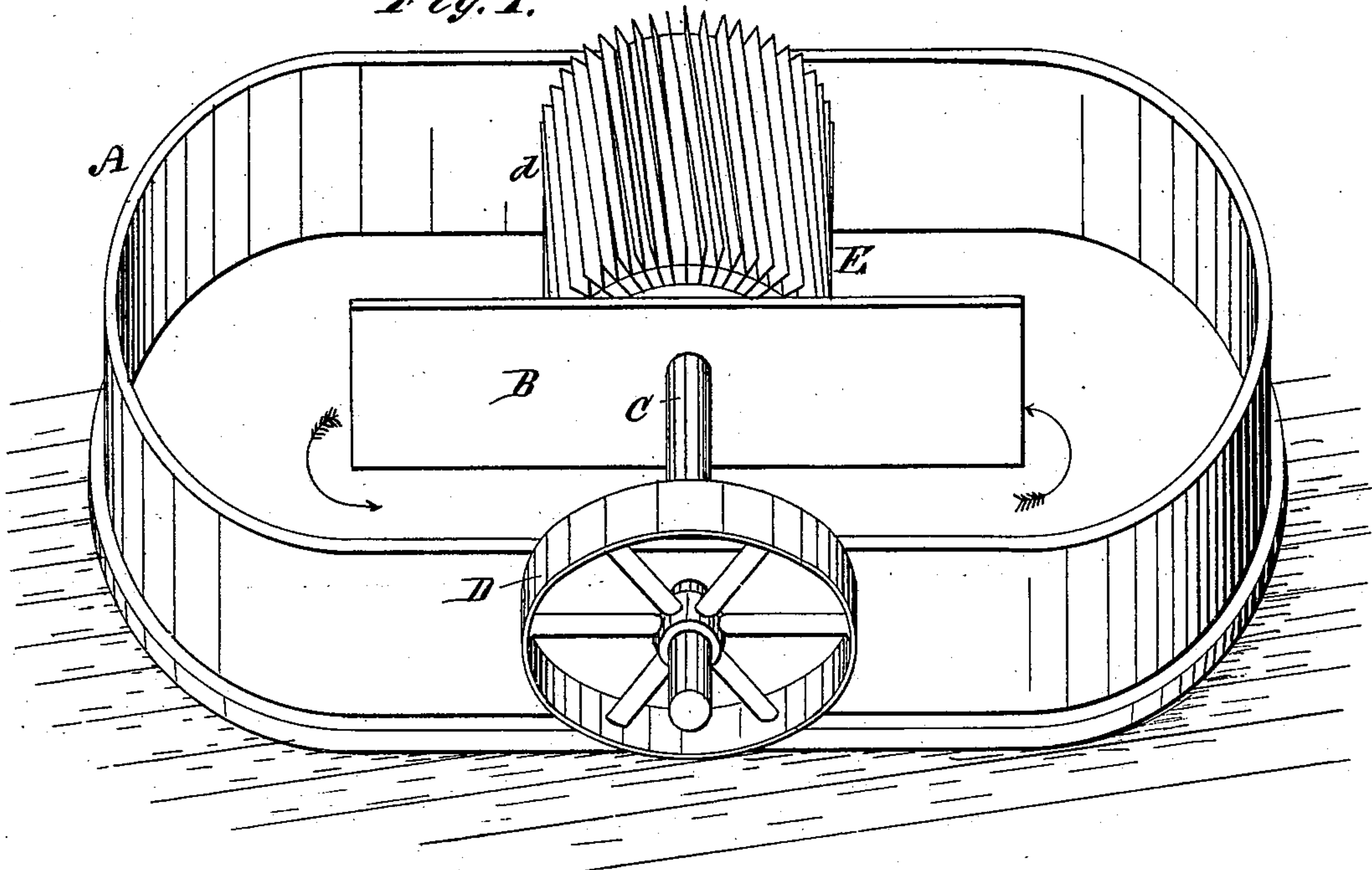
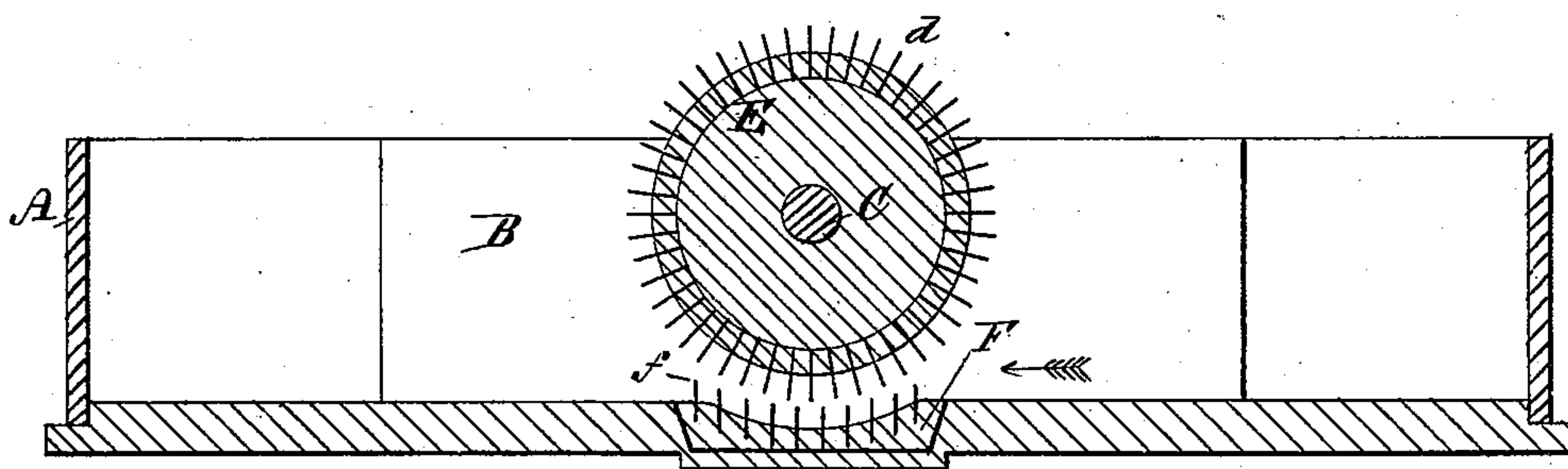


Fig. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM E. TAYLOR, OF FULTON, NEW YORK.

PAPER-PULP ENGINE.

SPECIFICATION forming part of Letters Patent No. 253,447, dated February 7, 1882.

Application filed December 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. TAYLOR, of Fulton, Oswego county, New York, have invented a new and useful Improvement in Paper-Pulp Engines, of which the following is a full, clear, and exact description.

The object of my invention is to provide a paper-pulp engine having greater efficiency than those in common use; and to this end my invention consists in setting the blades of the cylinder at an angle or diagonally across the surface of the cylinder, so that they will have a shaving action or cut with the fixed blades in the bottom of the engine-box.

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 figures.

Figure 1 is a perspective view of my improved paper-pulp engine, and Fig. 2 is a sectional elevation of the same.

A represents the engine-box, which is of the ordinary form, and provided in the ordinary way with the center board, B; and C represents the shaft, which is journaled in the side walls of the box, and is provided with the pulley-wheel D outside of the box, as shown. Upon this shaft is placed the cutting-cylinder E, and in the bottom of the box, immediately under the cutting-cylinder, is placed in the ordinary way the concave block F, carrying the set of knives or blades *f*, as shown in Fig. 2. The blades *d* of the cutting-cylinder, which are plain or straight, are not parallel with the shaft or axis of the cylinder, but are set diagonally

across the surface of the cylinder, as clearly shown in Fig. 1. By this arrangement of the blades of the cylinder it will be seen that these blades will have a shearing action or cut with the blades *f* in the bottom of the box, which are placed parallel with the axis of the cylinder. This shearing action, besides increasing the rapidity of reduction of the stock, causes a better circulation of the contents of the box, and makes the engine generally more effective than when the blades of the cylinder are parallel with the axis of the cylinder.

I do not confine myself to blades of any particular form in the bottom of the box, as the cylinder may be used with any of the blades in common use parallel or otherwise with the shaft of the cylinder.

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

1. In a paper-pulp engine, the cylinder E, having the plain cutting-blades *d*, set diagonally across the surface of the cylinder, substantially as and for the purposes set forth.

2. The combination of the cylinder E, having the plain cutting-blades *d*, set diagonally across its surface, and the blades *f*, arranged under the said cylinder and parallel with its axis, substantially as shown and described, whereby a shearing action or cut is given to the blades, as set forth.

WILLIAM EMERSON TAYLOR.

Witnesses:

JOHN C. GILLESPIE,
JAMES A. FOSTER.