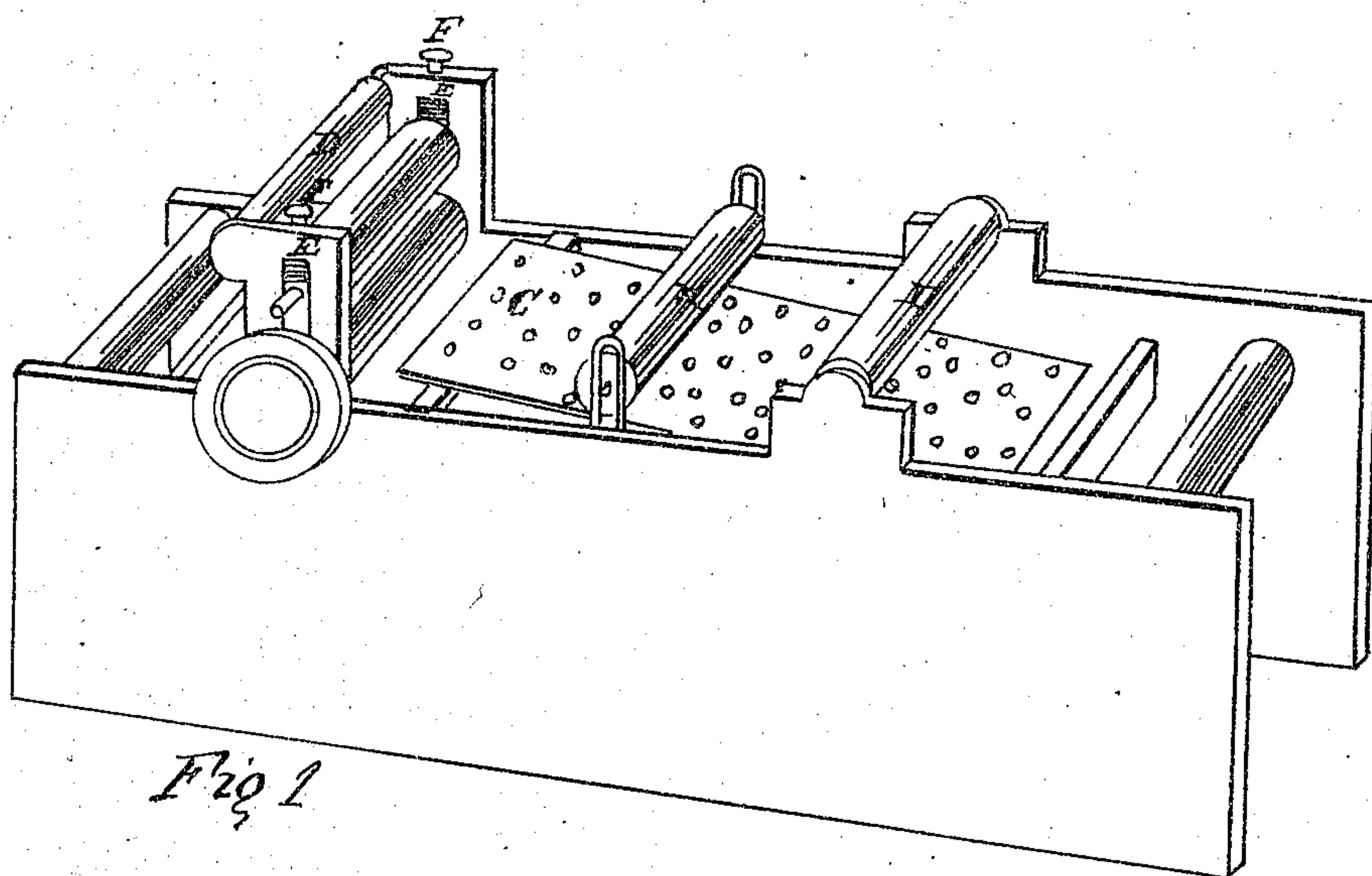
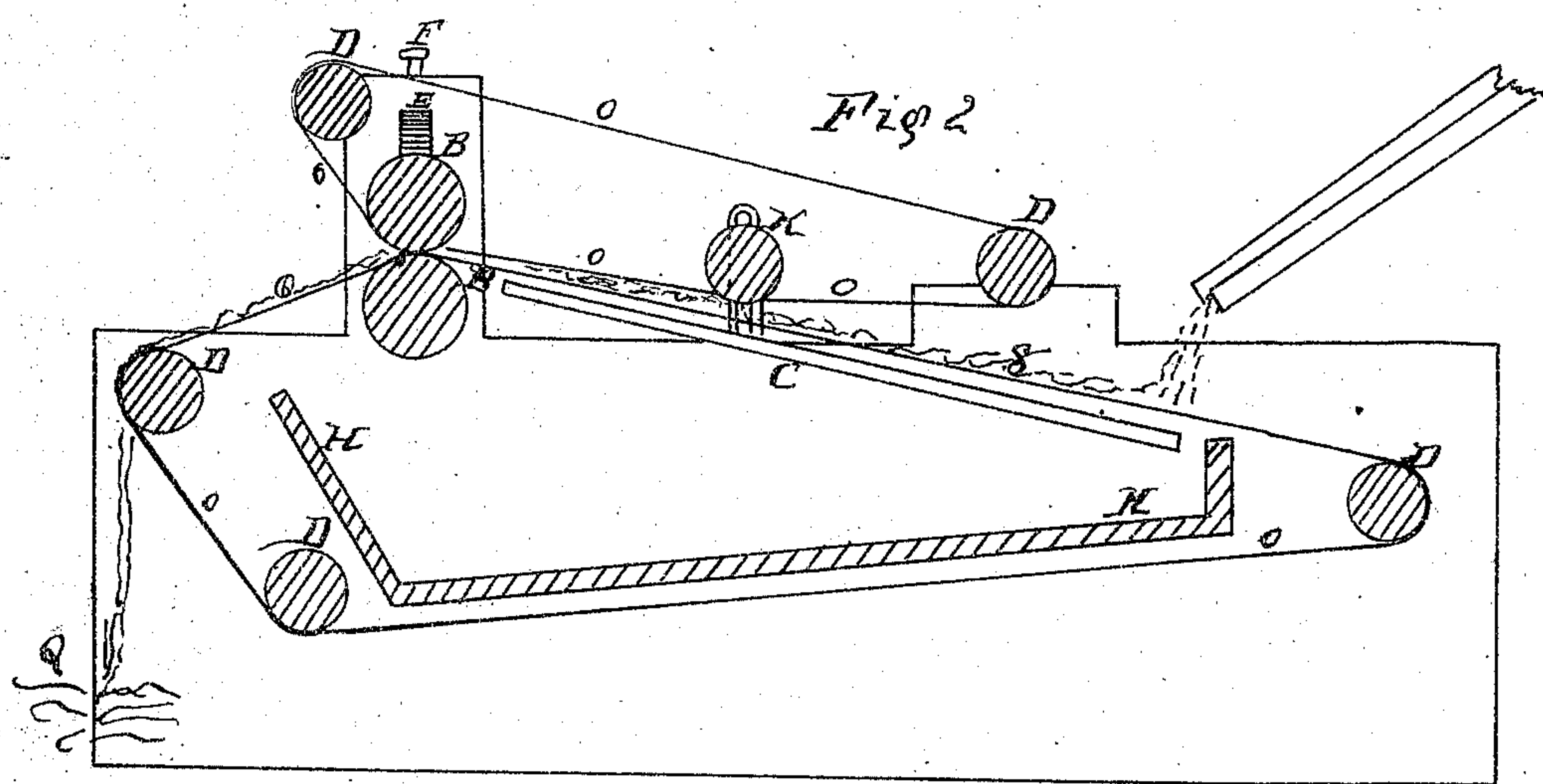


*S. T. Merrill.*  
*Bleaching Paper-Stock.*  
*Nº 75691* *Patented Mar. 17, 1868*



*Fig 1*



*Fig 2*

Witnesses  
*S. H. Castle*  
*H. J. Randall*

Inventor  
*S. T. Merrill*

# UNITED STATES PATENT OFFICE.

S. T. MERRILL, OF BELOIT, WISCONSIN.

## IMPROVEMENT IN BLEACHING PAPER-STOCK.

Specification forming part of Letters Patent No. **75,691**, dated March 17, 1868.

### *To all whom it may concern:*

Be it known that I, S. T. MERRILL, of Beloit, in the county of Rock and State of Wisconsin, have made and invented a new and useful Improvement in Eliminating Bleaching-Fluids and in Desiccating Paper-Stock; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, and to the letters of reference thereon.

This invention has for its object the elimination of bleaching-fluids from paper-stock without the use of draining vats or chests, thereby saving a greater portion of the chlorine or other bleaching solution, and arresting its destructive power, so that from a given quantity of material a larger yield of paper will be obtained.

It has also for its object the desiccation of fibrous substances before they have been bleached, and preparatory to the bleaching process.

In the accompanying drawings, Figure 1 is a perspective view of the apparatus or machine to be used to accomplish the objects herein set forth. Fig. 2 is a sectional view of the same.

Similar letters of reference indicate like parts.

A represent the driving-pulley; B B, rub-

ber rolls, pressed together by the screws F F acting on springs of rubber or metal E E. D D represent the rolls for the felts O O O, that guide the "stuff" S through the rubber rolls; Q Q, desiccated stuff; K, pressure-roll; C, perforated or grooved platform, (for supporting the felt or apron loaded with stuff,) and for which rolls may be substituted; H H, the box or vat for the escaping fluids.

The rubber rolls may be connected and controlled with gears, and pressed together as in the ordinary clothes-wringer, or with levers and weights. The machine may be constructed with one or more pairs of rubber rolls, or with pairs of one of rubber and one of metal or wood.

In lieu of the rubber rolls, any suitable press may be used for discharging bleaching-liquors from what is technically known as "stuff" or "half-stuff."

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

1. The manipulation of paper-stock (particularly wood and straw) in the bleaching-fluids without the use of draining-vats.

2. The desiccation of stuff and half-stuff with rubber rolls, substantially as set forth.

S. T. MERRILL.

Witnesses:

D. W. C. CASTLE,  
W. T. RANDALL.