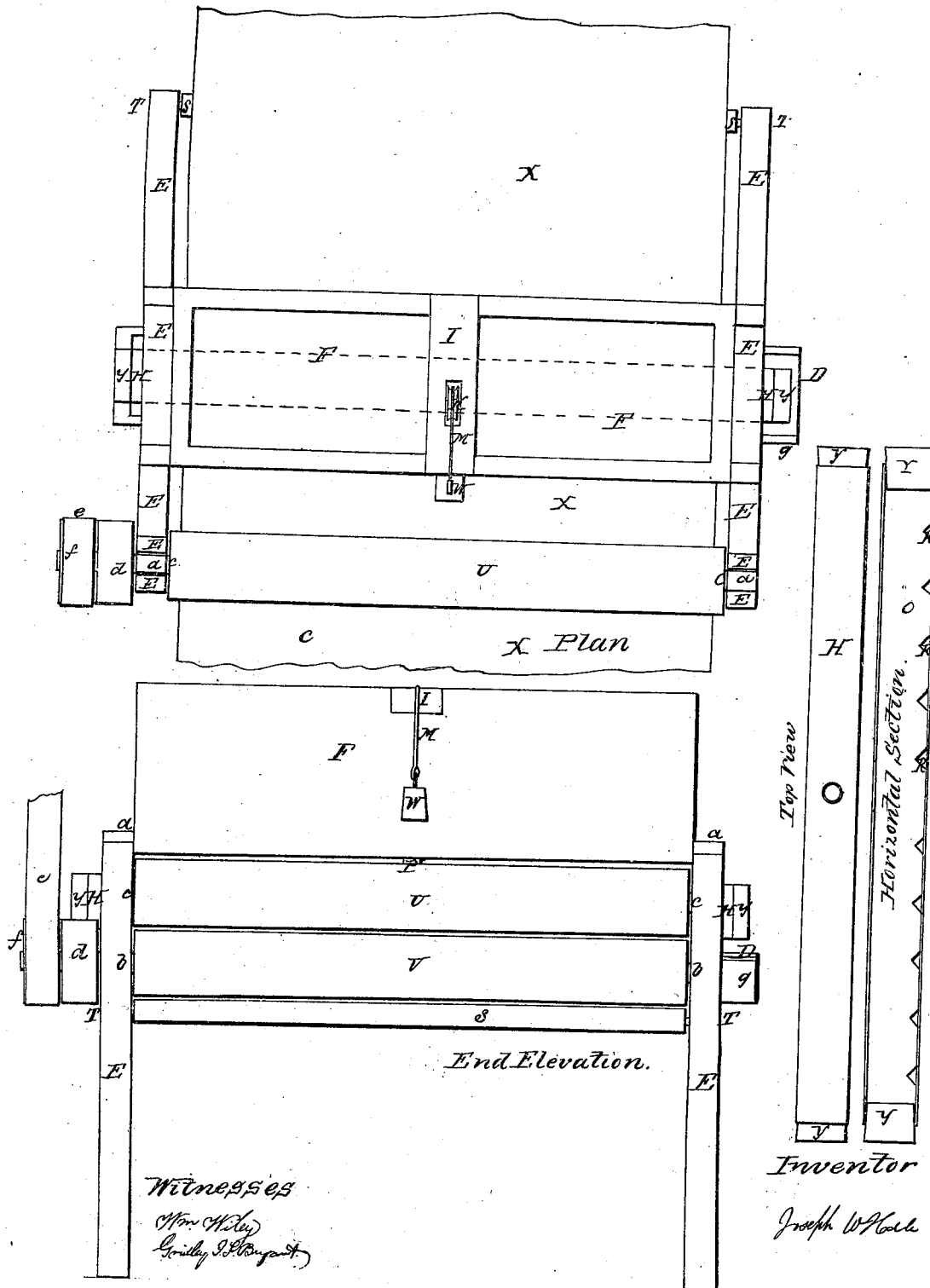


J. W. Hale.

Wetting Cloths for Scouring.

N^o 2,028.

Patented Apr. 2, 1841.

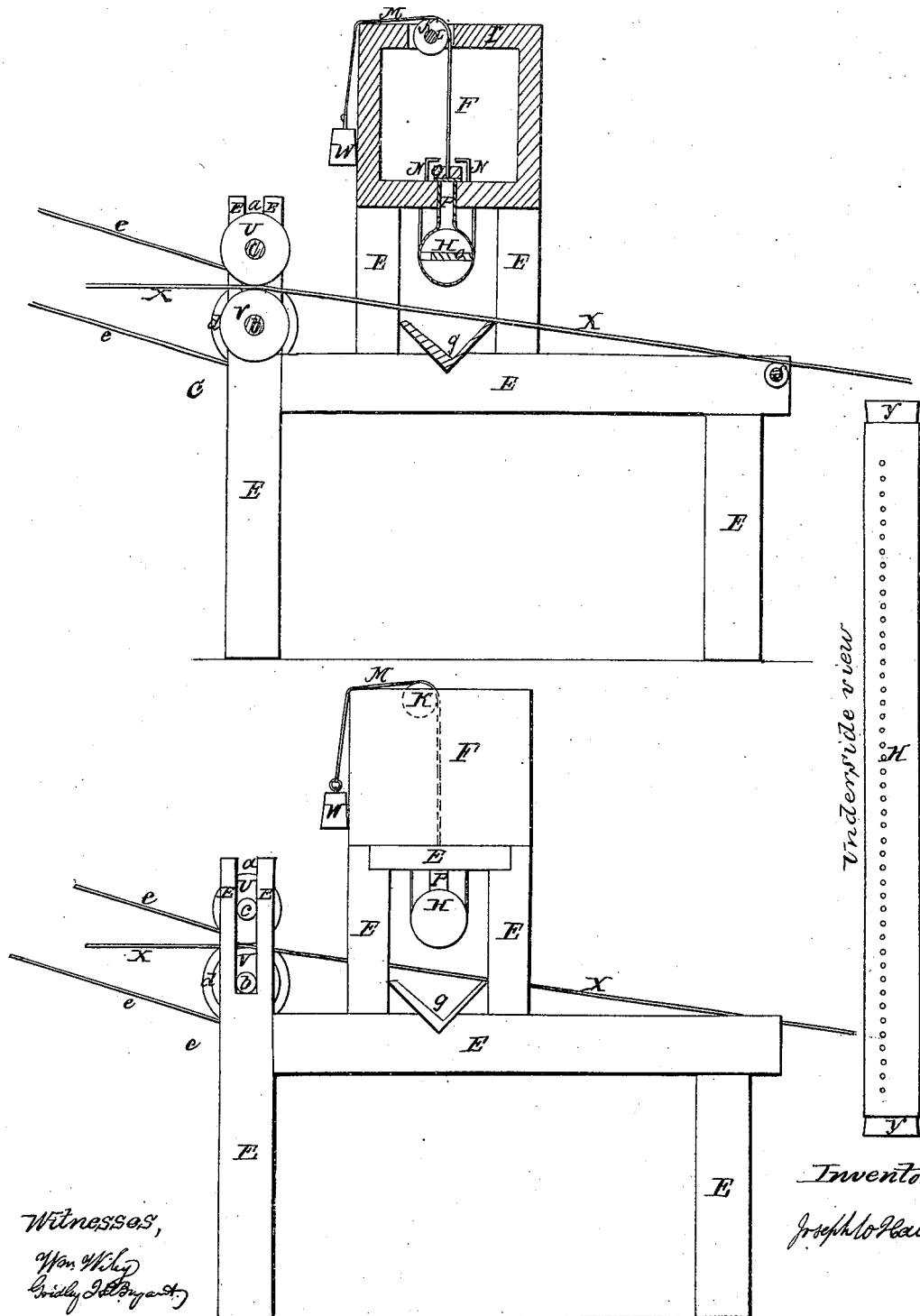


J. W. Hale.

Wetting Cloths for Scouring.

N^o 2,028.

Patented Apr. 2, 1841.



Witnesses,
Wm. Wiley
Charles J. Bryant

Inventor,
Joseph W. Hale

UNITED STATES PATENT OFFICE.

JOSEPH W. HALE, OF HAVERHILL, MASSACHUSETTS.

METHOD OF WETTING FLANNELS AND OTHER CLOTHS.

Specification of Letters Patent No. 2,028, dated April 2, 1841.

To all whom it may concern:

Be it known that I, JOSEPH W. HALE, of Haverhill, in the county of Essex and State of Massachusetts, have invented a new and
5 Improved Mode of Wetting Flannels and other Cloths Previous to Scouring or Milling; and I do hereby declare that the following is a full and exact description.

E, E represents the frame work of the
10 apparatus.

F is the tank or cistern, containing the scouring liquor.

G represents a valve used for the purpose of closing the orifice of the pipe P, which
15 communicates with the colander or strainer H. The pipe and the strainer may be of copper or any suitable material. In order that the valve G may be lifted and thereby cause the liquor to flow when required from
20 the tank to the colander, I attach to it the following apparatus.

I is a bar extending across the tank. Over the orifice of the pipe P, I place, in the bar I, a roller K, turning on an axle L. A belt
25 M is passed over the roller, and attached to the valve over the orifice of the pipe. To the other end of the belt is suspended a weight W, which serves to raise the valve and thereby permits the passage of the liquor into the
30 pipe and strainer.

N, N represent catches, which prevent the escape of the valve G, after it has reached its requisite elevation.

The colander or strainer H is intersected
35 by a partition O. This partition is fitted tight to the internal surface of the colander and prevents the passage of the scouring liquor into its lower portion except through the holes or notches R, R, shown in the horizontal section of the detail of the strainer.
40 The underside of the strainer is perforated with holes as shown in the underside view, through which holes the liquor falls upon the cloth, as it passes under the strainer.
45 The strainer as represented in the drawings is provided with a stopper at each end. This method of stopping the end of the strainer may be adopted, or any other convenient mode. In the plan or top view the
50 strainer is represented by dotted lines.

S represents a roller, turning in the framework E, on its axis T T.

U and V are two colander rollers of wood, soap stone or other suitable material, between which the cloth X passes, after its
55 passage under the colander. The lower roller V turns upon it journals b, b, whose bearings are the bottoms of the slots a, a.

The upper roller U rests upon the roller V 60 and turns by friction of the roller V, or of the intervening cloth. The journals c, c of the roller U are also placed in the slots a, a; but they have no bearing; so that the roller U may come into as close contact with the
65 cloth as its weight or any weight that may be superadded will permit. The motion of the lower roller V may be performed by means of a drum d, belt e, and loose pulley f, as represented in the drawings or in any
70 convenient manner.

In the operation of wetting the flannel, the tank F is provided with the requisite quantity of liquor; the valve G is then suffered to fall and close the orifice of the pipe
75 P; the action of the weight W being suspended by causing it to rest upon the framework of the machine, or in any suitable manner, till it be required to pass the liquor upon the cloth. The weight W is then suffered
80 to fall, causing the valve G to be elevated, and making a free passage for the liquor from the tank to the colander. The cloth having been passed over the roller S, thence under the colander H, and thence
85 between the rollers U and V, motion is communicated to the lower roller V, by means of the drum d, or otherwise. The friction occasioned by the weight of the upper roller produces in connection with the revolution
90 of the rollers the delivery of the cloth from the operation of the machine; and thus the whole length of the cloth receives the droppings of the colander or strainer H. The gutter g is provided under the colander and
95 under the cloth, to receive the surplus liquor, and save it for use a second time.

The usual method of wetting cloths has been by sprinkling by hand without the aid
100 of machinery.

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

The combination of the tank F, the valve G, (regulated by the weight W), the rollers U, V and S, and the colander H, the whole
105 being constructed, and operated as herein described.

In testimony that the above is a true description of my inventions and improvements, I have hereunto set my hand and
110 seal this sixth day of February in the year of our Lord eighteen hundred and forty one.

JOSEPH W. HALE. [L. s.]

Witnesses:

WM. WILEY,
GRIDLEY I. F. BRYANT.