No. 606,695. Patented July 5, 1898.

W. A. TRAVER.

PRESS.

(Application filed Dec. 26, 1896.)

(No Model.) 2 Sheets—Sheet 1.

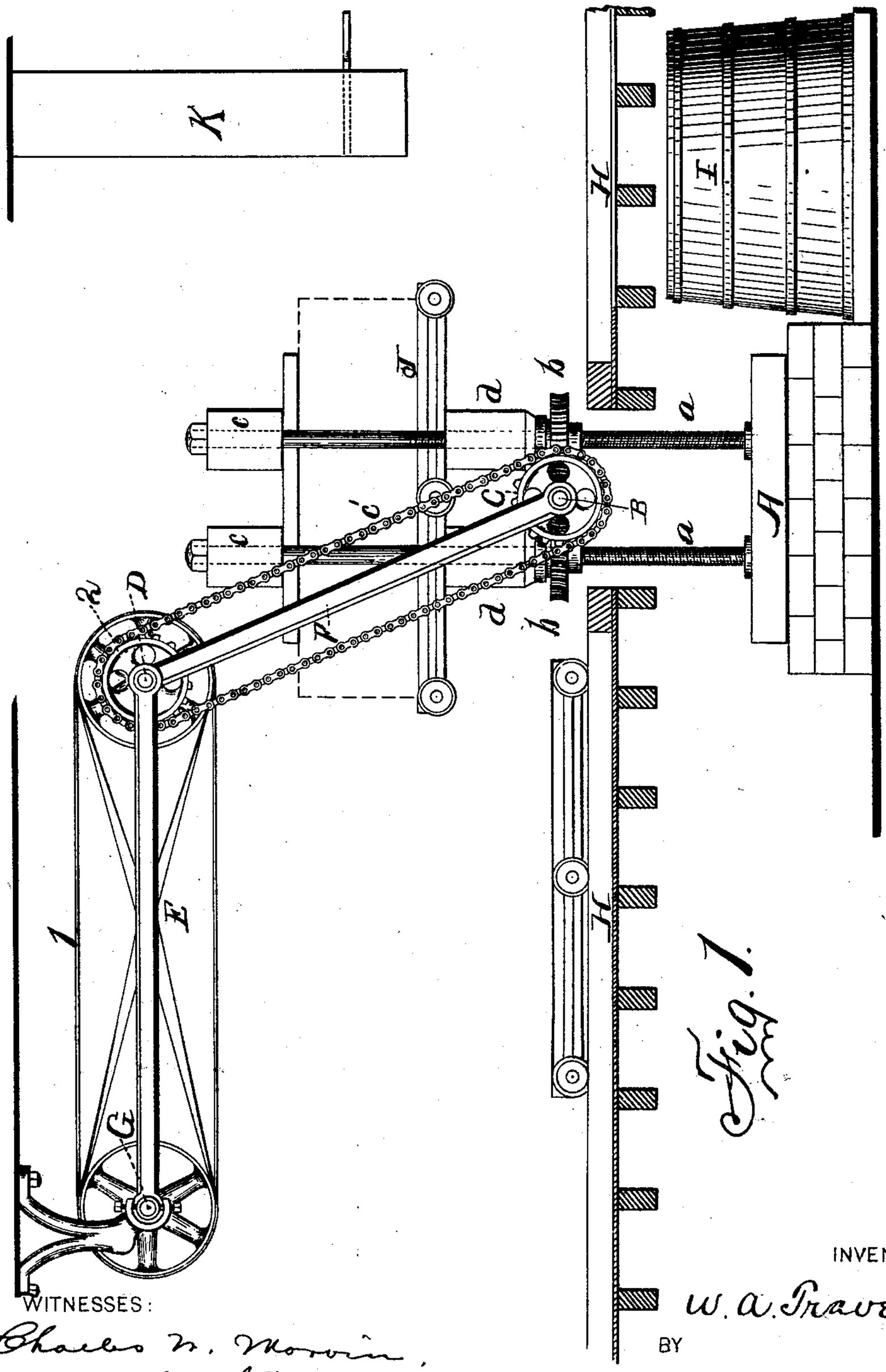

Fig. 1.

WITNESSES:

Charles N. Morrow.

Mary A. Franklin

INVENTOR

W. A. Traver.

BY

Smith & Wilson

ATTORNEYS.

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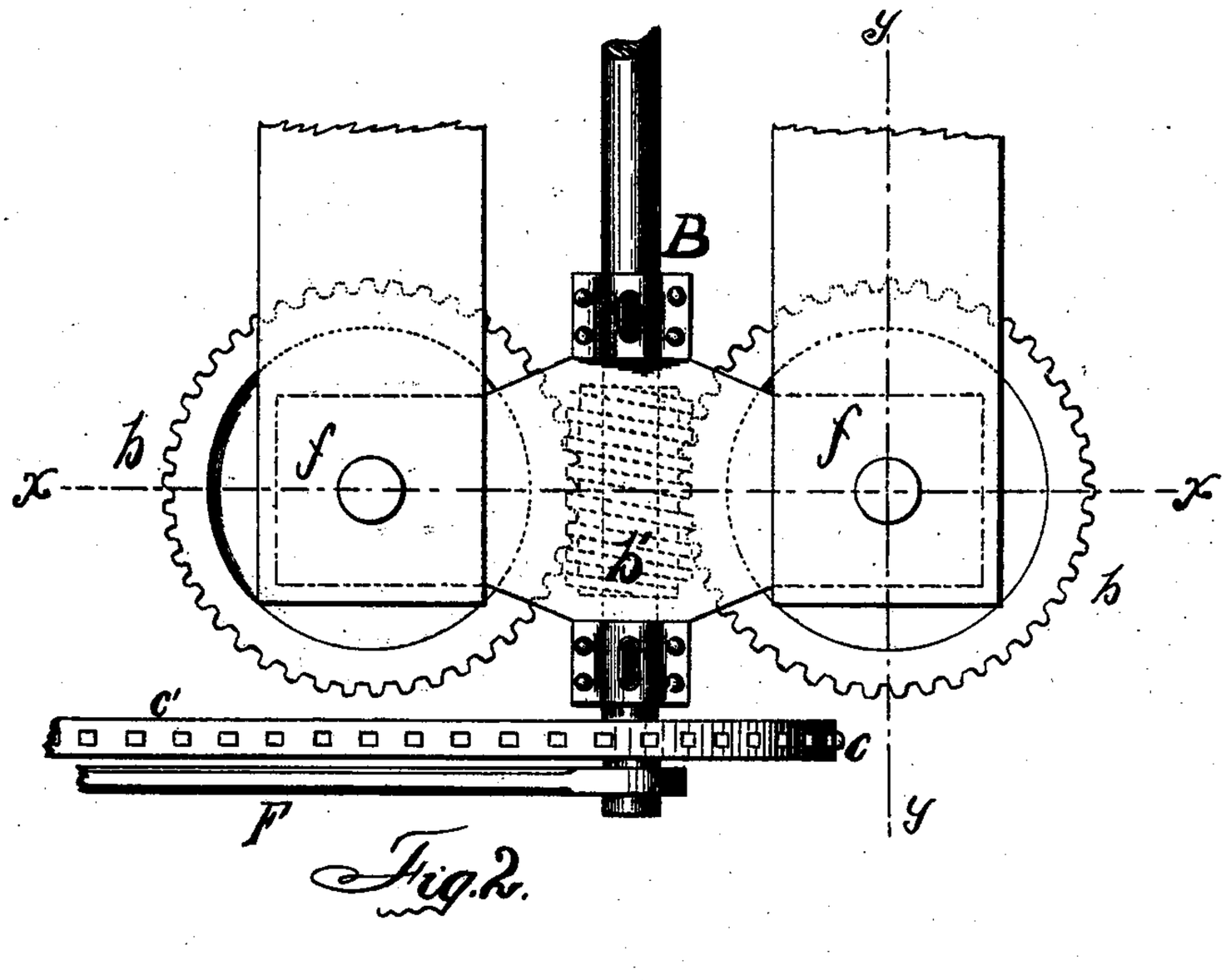

Fig. 2.

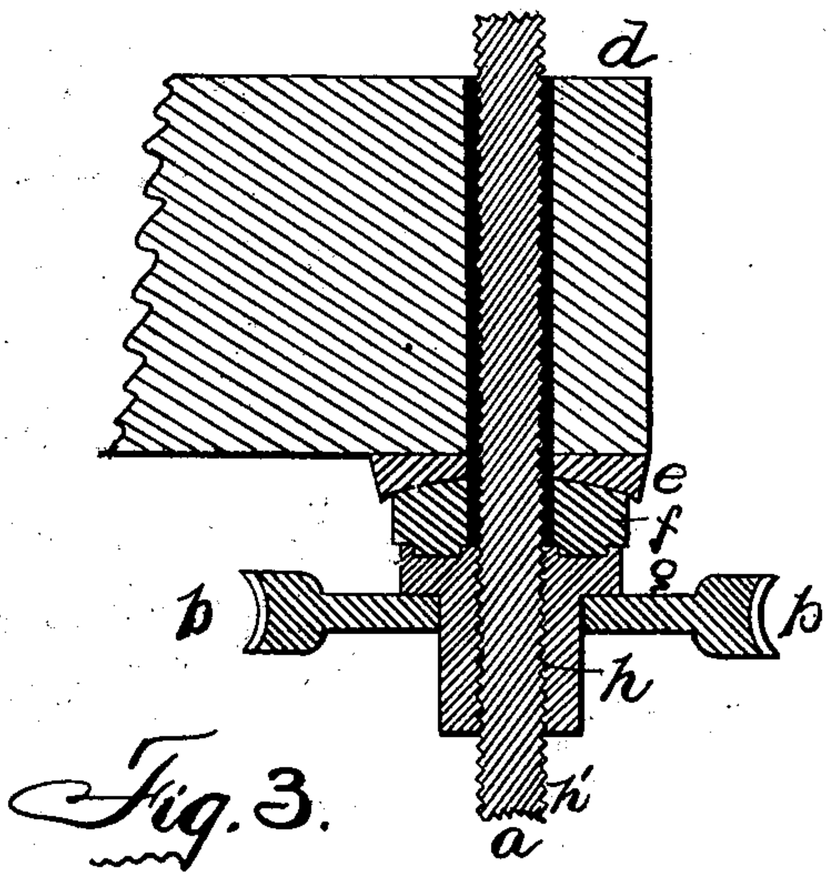

Fig. 3.

WITNESSES:

Charles N. Mowrin.

Mary A. Franklin.

INVENTOR

William A. Traver.

BY

Smith & Benson

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM A. TRAVER, OF WEEDSPORT, NEW YORK, ASSIGNOR OF ONE-HALF TO EUGENE TRAVER, OF SAME PLACE.

PRESS.

SPECIFICATION forming part of Letters Patent No. 606,695, dated July 5, 1898.

Application filed December 26, 1896. Serial No. 616,989. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. TRAVER, of Weedsport, in the county of Cayuga, in the State of New York, have invented new and useful Improvements in Presses, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in presses, having more particular reference to cider or wine presses in which the juice or liquor is expressed from a ground pumice made in the form of what is called a "cheese."

My object is to improve their construction and general utility; and to that end my invention consists in the several new and novel features of construction and operation hereinafter described and which are specifically set forth in the claim hereunto annexed. It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of the press mounted, showing it in operation. Fig. 2 is a top plan view of the worm and the sprocket actuating the same and showing the engagement of the worm with the cogs upon the vertical screws. Fig. 3 is a vertical section taken on the line *x x* of Fig. 2.

A is a base suitably constructed and upon which are mounted four vertical screws *a* and are provided with cogs *b*, secured thereto, as shown, and *c* are beams connecting the screws *a* at their tops, as shown, and are secured thereto. Just above the cogs *b* are similar beams *d*, having openings *d'* large enough to allow the screws *a* to pass through without interruption. These beams *d* rest upon a plate *e*, the lower side of which is concaved, as shown in Fig. 3, and adapted to rest upon the convexed bearing-surface of the plate *f*, which in turn rests upon the sleeve *g*, being internally threaded, as shown at *h*, and adapted to engage with the thread *h'* upon the vertical screws *a*.

B is a shaft suitably mounted and having worms *b'* upon each end and adapted to engage with the cogs *b*, the shaft B being provided at one or both ends with a sprocket-wheel C.

D is a pulley-shaft, to which power is transmitted by the belt 1 or in any other manner desired and provided with sprocket-wheels 2 upon either or both sides and carry the sprocket-chain to the sprocket-wheel C.

The two pairs of arms E F are loosely connected at their outer ends to the shafts B and G and are connected at their inner ends by the shaft D, which rotates freely in them.

H are platforms each side of the press, substantially as shown, and I is a liquor-receptacle adapted to receive the juice as it is expressed from the pumice or cheese.

K is a spout by which the pulp is conveyed from the grinders to the trucks.

J are trucks or cars upon which the cheese is placed, whence it is forced up to the position shown in Fig. 1 until the top of the cheese comes in contact with the beams *c*.

My invention is operated as follows: I first reverse the screws until the beams *d* are down, so that their upper face is flush with the platform. I then run a car containing a cheese of pumice and reverse the motion, the beams *d* carrying the cheese to the position shown in Fig. 1, where the continued rotation of the screws forces the cheese up against the beams *c*, and the liquor is expressed. When in the position shown in Fig. 1, I then pass the other car J' underneath the beams *d* to the other side of the press, which brings the empty car under the spout K ready to receive its load or cheese. When the first is sufficiently pressed, I reverse the screws until the beams *d* again come level with the track, running the car J off to the left and the other car onto the press, and repeat the operation. It will be observed that as the shaft B rotates and the worms *b'* rotate the cogs *b* there is a possibility of the screws binding, either by reason of the beams being forced out of their normal position at the center or the screws working unevenly, and to avoid this I have placed the convexed plate *e* upon the plate *f*, so as to allow it to slightly rock and tilt without interfering with the operation of the press, the shaft B always keeping plates *f* in a level position. It will also be observed that the plate *f* connects the two end screws and serves to hold them in such a position that they will operate uniformly. It will also be observed

that the arms E and F serve as a bracket with a knuckle-joint upon the shaft D and allows the said shaft to work freely vertically.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

In a cheese-press, the two platforms located upon opposite sides of the screws, combined with two pairs of screws *a* which are rigidly secured to a suitable base at their lower ends, the cross-bars *c* for rigidly connecting the upper ends of the screws, the perforated, movable bearing-plates *e* upon which the cross-bars rest, and which plates have their lower surfaces made concave, and are located just above the operating mechanism by which the cross-bars *d* are moved, the perforated plates *f* through which the screws pass, and which are made convex upon their upper surfaces so as to correspond to the shape of the plates *e;* the operating-shafts B provided with worms, and worm-wheels, a sprocket-wheel upon the end of the shaft and suitable driving mechanism for the operating mechanism, substantially as shown.

In witness whereof I have hereunto set my hand this 21st day of November, 1896.

WILLIAM A. TRAVER.

In presence of—
MARY A. FRANKLIN,
HOWARD P. DENISON.