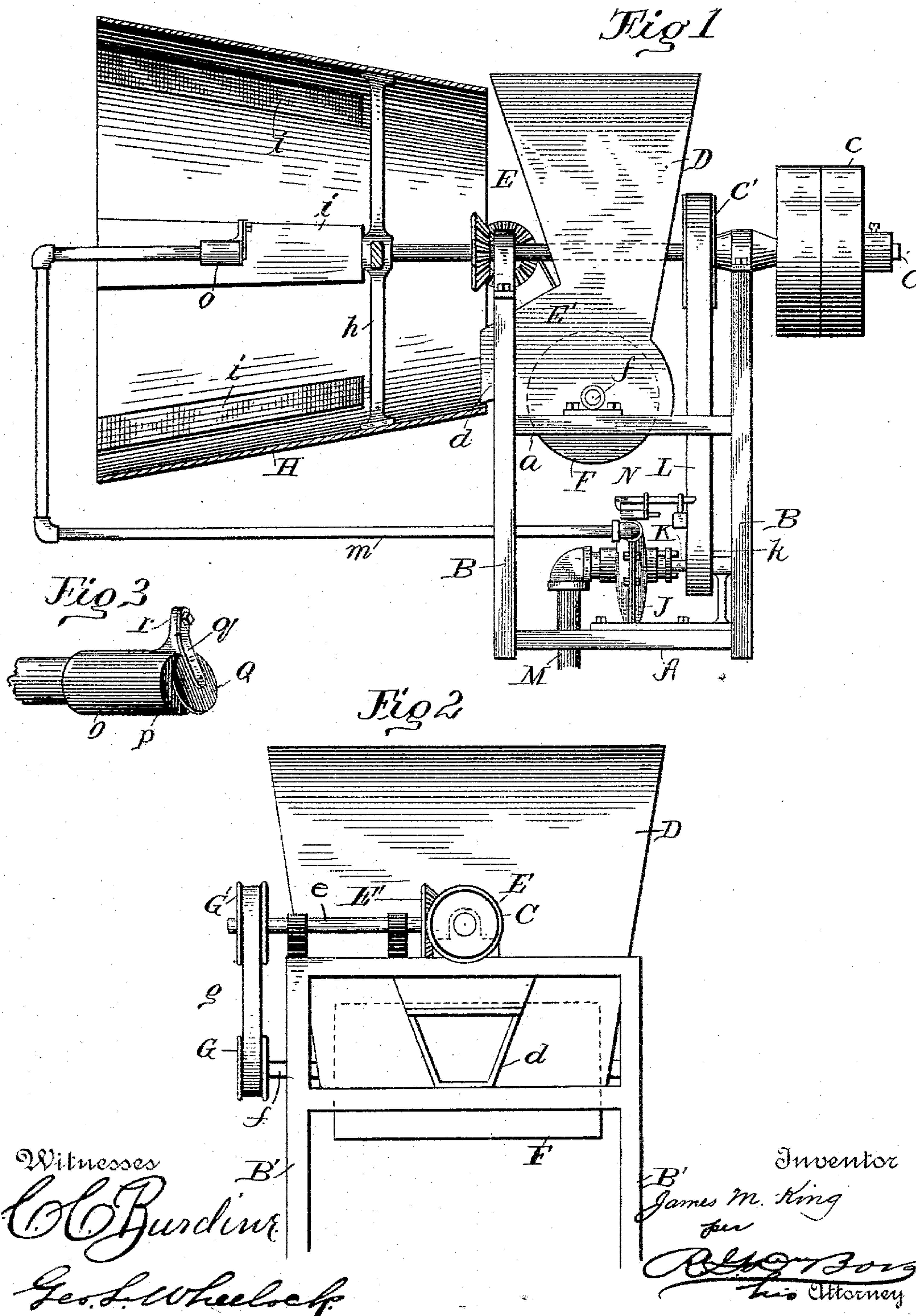


(No Model.)

J. M. KING.
MACHINE FOR FLAVORING TOBACCO.

No. 494,960.

Patented Apr. 4, 1893.



UNITED STATES PATENT OFFICE.

JAMES M. KING, OF NORTH DANVILLE, VIRGINIA.

MACHINE FOR FLAVORING TOBACCO.

SPECIFICATION forming part of Letters Patent No. 494,960, dated April 4, 1893.

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To all whom it may concern:

Be it known that I, JAMES M. KING, a citizen of the United States, residing at North Danville, in the county of Pittsylvania and State of Virginia, have invented certain new and useful Improvements in Tobacco-Flavoring Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a tobacco flavoring machine, wherein a force-pump is employed, its objects being to effectively spray the tobacco with licorice or other flavoring medium, and to thoroughly scatter the tobacco in the spray drum.

To these ends my invention consists in certain features of construction and combinations of parts to be hereinafter described and then particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of my improved machine, partly in section. Fig. 2 is an elevation looking toward the inner side of the hopper simply. Fig. 3 is a perspective view of the spray attachment.

A is the base and B, B', uprights or standards connected above the base by means of bars *a*, only one of which is shown. The main drive shaft C extends across and is journaled in suitable bearings at the tops of the uprights B, B', and is provided with main drive pulley *c*.

D is a hopper supported between the uprights on the bars *a* at the inner lower end of which is its spout *d*. Through the hopper the main drive shaft C passes, and is provided on one side of the same with a belt pulley C', and on the other side with a bevel gear wheel E. Journaled in suitable bearings on the inner side of the hopper D, is a horizontal shaft *e*, having at its inner end a bevel gear wheel E', with which meshes the wheel E. In the lower end of the hopper D, is a feed roller F, mounted on a shaft *f*. At the outer end of the shaft *f*, is a belt pulley G, over which and over the belt-pulley G', at the outer end of the shaft *e*, passes a belt *g*.

The inner end of the drive-shaft C passes into the inner end of the open-ended spray

drum H, which is supported on the shaft by means of radial arms or spokes *h*, extending from the latter and secured at their outer ends to the inner side of the drum. This rotary drum is made flaring or funnel-shaped, being larger at its delivery or outer end than at its receiving or inner end. On the inner side of the drum are longitudinal ribs or vanes *i*, which extend from the outer end thereof to about its middle.

J is a centrifugal pump supported on the base A, the shaft K, of which, is provided with a pulley *k*, over which and over the pulley C', of shaft C, passes the belt L, whereby the pump is driven.

M is a suction pipe leading to the pump, and *m* is the pipe which takes the supply of licorice solution from the pump. N is a suitable safety-valve. The supply pipe *m* extends along under the drum H, then upwardly and then into the outer end of the latter, coaxially with the drive-shaft C. The pipe is provided at its outer end with a spray nozzle O, as shown in Fig. 3. This nozzle has a semi-circular series of orifices *p*, through which the liquid passes downward and sidewise into the lower part of the spray drum. The orifices *p*, are closed by a flap-valve Q, which is held down upon its seat by a spring *q* to which it is secured. The spring is secured at its upper end to a lug *r* above the nozzle.

In operation the feed-roller F carries the supply of tobacco in the hopper out through the spout *d* and into the rotary spray drum H. The tobacco slides down the incline of the drum and spreads out over the additional surface afforded by the form of the drum.

To rotate the feed-roller F and drum H, the drive-shaft C must of course be set in motion, and this sets the pump J to work. The head or force of the liquid in the pipe *m*, overcomes the tendency of the spring *q*, and automatically opens the valve Q, permitting the liquid to issue in a spray through the orifices *p*. After the tobacco has been dampened by the spray and been turned over and over by the ribs or vanes *i*, it falls from the drum into any suitable receiver.

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

1. The combination in a tobacco flavoring machine, of a rotary flaring drum provided with driving mechanism, a feed hopper emptying into the smaller end of the drum, and
5 a spraying device located within the drum, whereby the tobacco is sprayed and the leaves separated as they pass through the drum, substantially as described.

2. The combination in a tobacco flavoring
10 machine, of a horizontal shaft provided with a flaring drum, a feed hopper communicating with the smaller end of the drum, a spraying

nozzle located within the drum, a pump having a pipe leading to the nozzle and driving mechanism, substantially as described, connected to the drum and pump shafts whereby the pump is actuated, in the manner and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES M. KING.

Witnesses:

WALTER R. HICKEY,
T. G. YARBROUGH.