

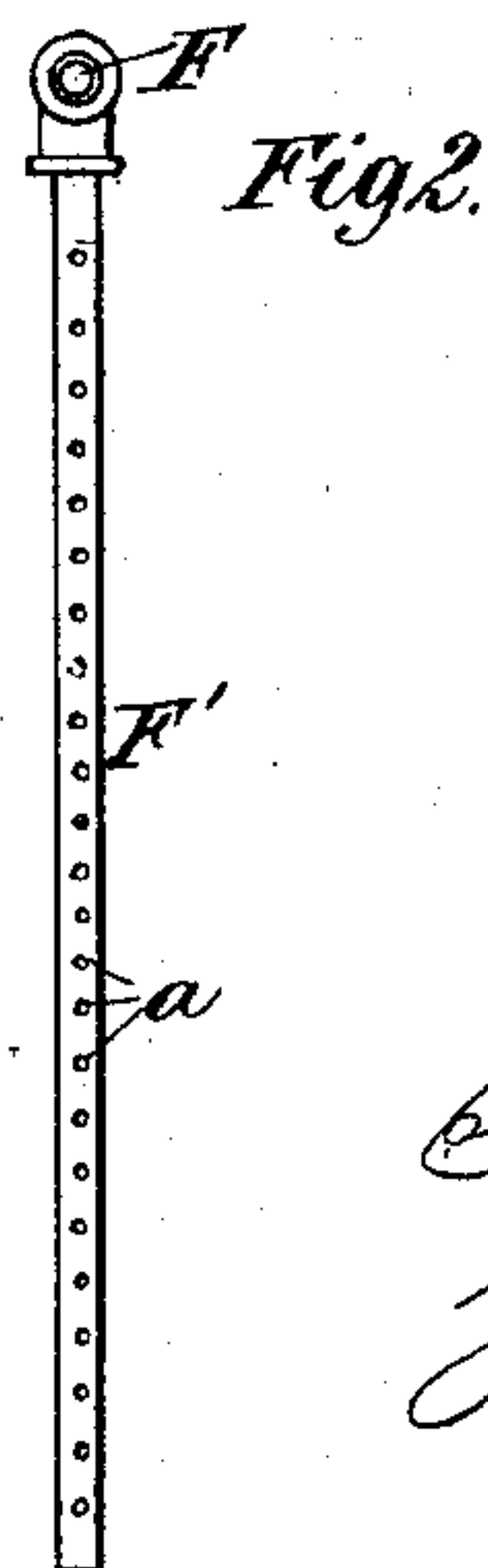
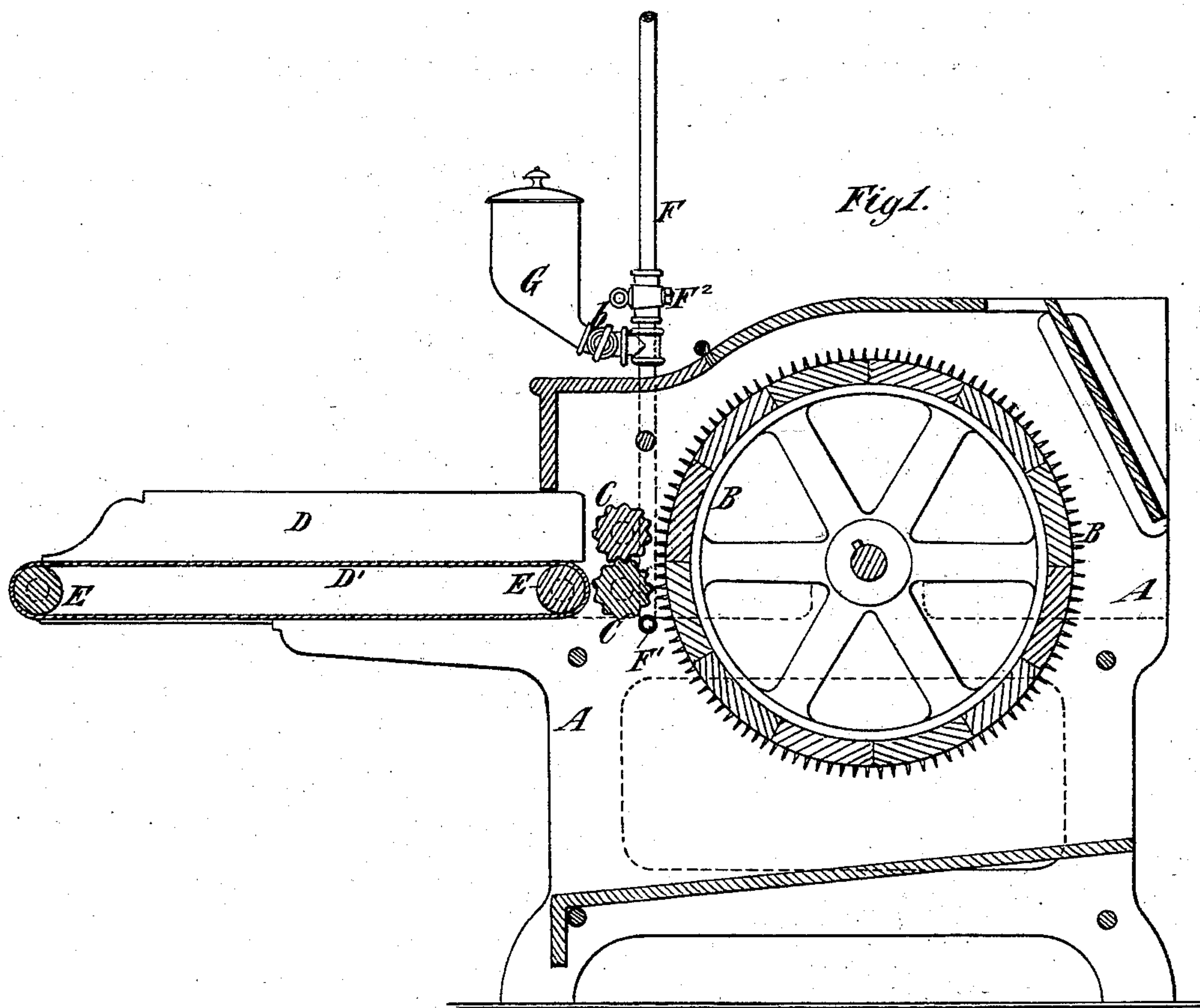
(No Model.)

F. L. PALMER.

PROCESS OF AND APPARATUS FOR PICKING RAGS AND WASTE FROM SHODDY.

No. 280,076.

Patented June 26, 1883.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK L. PALMER, OF NEW LONDON, CONNECTICUT.

PROCESS OF AND APPARATUS FOR PICKING RAGS AND WASTE FROM SHODDY.

SPECIFICATION forming part of Letters Patent No. 280,076, dated June 26, 1883.

Application filed January 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK L. PALMER, of the city of New London, in the county of New London and State of Connecticut, have invented a new and useful Improvement in the Process of and Apparatus for Picking Rags and Waste from Shoddy, of which the following is a specification.

Rags and waste which are used for producing shoddy have commonly applied to them oil, or oil and water, which lubricates the teeth of the picker-cylinder and the rags.

The invention includes an improvement in the process of picking rags and waste, which consists in subjecting the rags or waste at the picking point or line, or while they are being acted upon by the picker-cylinder, to the action of steam-jets, and in directing upon and distributing among the rags or waste, oil or other liquid or substance by the action of the steam-jets.

The invention also consists in the novel combination, with a picker-cylinder and feeding and holding rolls, of a steam-pipe extending across the face of the picker-cylinder, and between it and the feeding and holding rolls, and perforated, so as to direct steam upon the rags and waste while they are being acted upon by the picker-cylinder. I may also combine with the steam-pipe a feeder or receptacle, from which any liquid or substance—such as oil—may pass into the steam-pipe and be directed against and distributed among the rags or waste by the action of the steam.

In the accompanying drawings, Figure 1 represents a vertical section of a machine embodying my invention, and Fig. 2 represents a plan of the steam-jet pipe detached from other parts.

A designates the frame of the machine, and B the picker-cylinder, which is journaled in said frame. The cylinder may be of the usual construction employed in rag-pickers, and is to be rotated in the usual way.

C C designate grooved or fluted feed and holding rolls, which feed the rags or waste forward and hold them while they are being acted upon by the picker-cylinder.

D designates the usual feed box or trough, in which is an apron, D', mounted upon rollers E, and adapted to carry the rags or waste to the feed and holding rolls C.

So far as described the machine is similar to those heretofore in use.

F designates a steam-pipe, which is used to convey steam from any suitable boiler or source of supply, and which terminates in a horizontally-extending portion, F', arranged near to and across the face of the picker-cylinder B, and between the lower roll, C, and the cylinder. The horizontally-extending portion F' of the steam-pipe is shown in Fig. 2, and is provided with numerous holes, *a*, through which steam escapes in jets. The steam-pipe F has in it a cock or valve, F², whereby the flow of steam may be regulated. By means of the steam-pipe, arranged as shown, the rags are steamed and moistened at the picking point or line, or while they are being acted upon by the picker-cylinder, and the steam being delivered in jets along the whole length of the picking-cylinder, the rags are uniformly moistened and are permeated by the steam. The rags, in addition to being moistened, are to a certain extent cleaned and purified, and the steam will act as a destroying agent to kill germs of disease.

For many purposes it will not be necessary to oil the rags; but in some cases it may be desirable, and I therefore connect a feeder or receptacle, G, with the steam-pipe F. This feeder G may be simply an ordinary lubricator or oil-cup, and may be provided with a cock, *b*, for shutting off the flow therefrom when it is not desired. When the cock *b* is open, oil will pass from the feeder G into the pipe F, and by the steam will be taken up and carried forward, and finally discharged into the rags in a finely-divided condition. In this way the rags may be uniformly oiled with but a small quantity of oil, and an important saving is thereby effected.

In lieu of employing the feeder G for oil, I may fill it with any disinfectant—a solution of sulphate of iron, for example—and the rags will thereby be disinfected; or I may employ it as a feeder for any liquid or substance to be distributed by the steam.

I am aware that a machine has been patented for picking or disintegrating waste felt fabrics, and which comprises a picking-cylinder, feeding and holding rolls, a belt or apron which presents the materials to be operated upon to said rolls, and a perforated steam-box

for steaming the materials while on said belt or apron, and before they reach said rolls. I steam the materials while they are being operated upon by the picking-cylinder, or at the 5 picking-point, and after they have passed the feeding and holding rolls. I also believe that it is new to distribute oil or other substance upon the rags or materials at the picking line or point and by the action of the steam.

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

1. The improvement in the process of picking rags and waste, consisting in steaming the rags or waste at the picking line or point, or 15 while being acted upon by the picker-cylinder, and in distributing oil or other liquid or substance upon the rags or waste by the action of the steam, substantially as and for the purpose herein described.

2. The combination, with the picker-cyl- 20 inder and feeding and holding rolls, of a steam-distributing pipe extending across and near to the face of the picker-cylinder, and between it and the feeding and holding rolls, substantially as and for the purpose described. 25

3. The combination, with the picker-cylinder and feeding and holding rolls, of a steam-distributing pipe extending across and near to the face of the picker-cylinder, and between it and the feeding and holding rolls, and a 30 feeder or receptacle for supplying oil or other liquid or substance to said steam-pipe, substantially as and for the purpose described.

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Witnesses:

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