

(No Model.)

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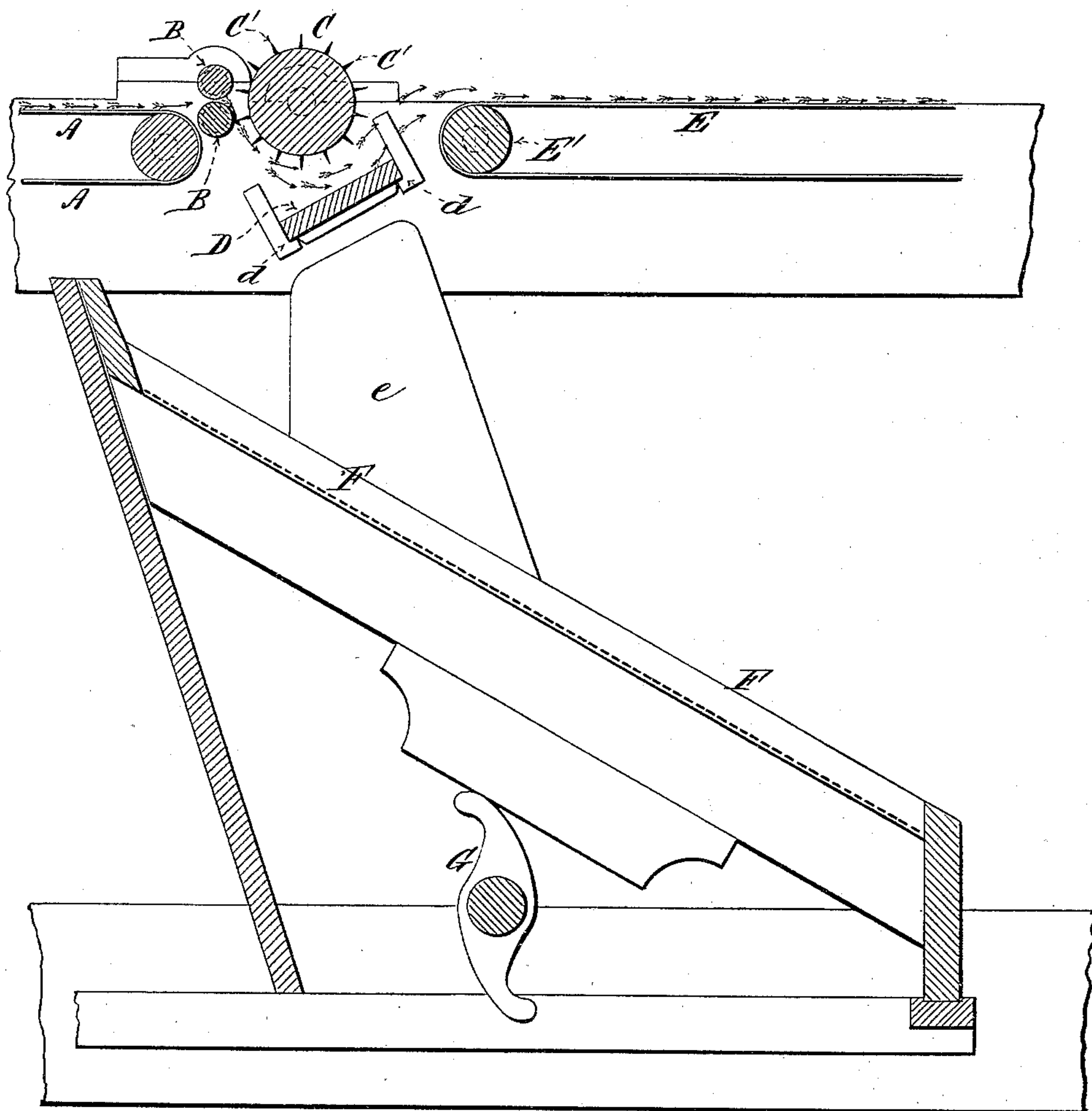
T. J. SAYRE.

FUR BLOWER.

No. 378,622.

Patented Feb. 28, 1888.

*Fig. 1.*



Witnesses:

*Geo. H. Miatt*

*M. L. Adams.*

Inventor:

*Theodore J. Sayre,*  
*Per Edw. E. Quincy,*  
*atly.*

(No Model.)

2 Sheets—Sheet 2

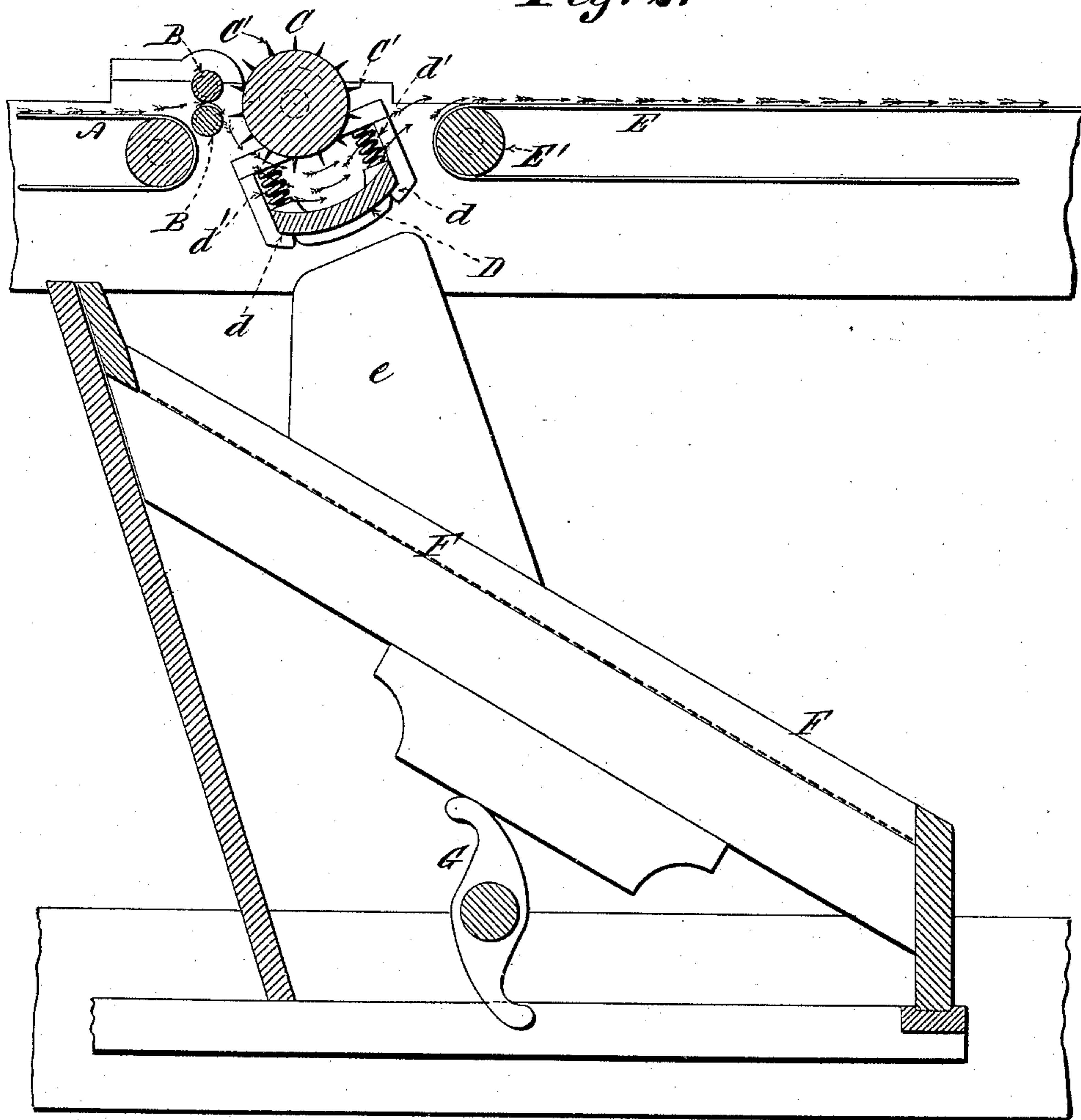
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*Fig. 2.*



*Witnesses:*

*Geo. H. Miatt*  
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# UNITED STATES PATENT OFFICE.

THEODORE J. SAYRE, OF NEWARK, NEW JERSEY.

## FUR-BLOWER.

SPECIFICATION forming part of Letters Patent No. 378,622, dated February 28, 1888.

Application filed October 12, 1887. Serial No. 252,147. (No model.)

*To all whom it may concern:*

Be it known that I, THEODORE J. SAYRE, of the city of Newark, county of Essex, and State of New Jersey, have invented certain  
5 Improvements in Fur-Blowers, of which the following is a specification.

In fur-blowers, which are machines for cleaning fur by disintegrating and blowing it away from any hair and dirt present, it is usual  
10 to arrange beneath the picker-cylinder a concave guide, commonly called a "draft-board," for the purpose of so confining and guiding the current of air as to enable it to blow the light flocculent fur forward and upward to the  
15 apron, it being intended that the hair and dirt shall fall by their own gravity upon the surface of the guide, and ultimately therefrom to the surface of the inclined vibrating sieve beneath the guide. It is found, however, that  
20 some fur is liable to collect in bunches upon the surface of the concave guide, and that such bunches when caught by the air-current are liable to be carried forward and deposited bodily upon the apron, thus making a so-  
25 called "dirty" or uneven bat.

It is the object of the present invention to overcome this difficulty; and the invention embraces two features which are capable of being employed, either independently or con-  
30 jointly, for preventing such collections of fur in bunches.

The invention consists, first, in the combination, with the picker-cylinder, of a draft-board, the surface of which is flat or nearly  
35 flat, and is transversely inclined at an angle of about thirty degrees from the horizontal, and is arranged beneath and extends slightly forward of the picker-cylinder in suitable position to deflect the air-current upward through  
40 the space between the picker-cylinder and the apron, whereby all the light flocculent fur first caught on the teeth of the picker-cylinder and then thrown off by centrifugal force is blown diagonally upward and deposited  
45 upon the apron, while the hair and dirt drop and fall by their own gravity down the inclined draft-board to the sieve underneath; secondly, the invention consists in the employment of means for imparting vibratory movements to  
50 the draft-board, irrespectively of the shape of

the board, for the purpose of preventing the lodgment of fur thereon.

The accompanying drawings, illustrating the application of the invention to a fur-  
blower of a well-known type, are as follows: 55

Figure 1 is a vertical section of the picker-cylinder and the parts adjacent thereto, showing the flat draft-board, the sieve underneath, and the wiper-cam for shaking the sieve. Fig. 2 is a vertical section similar to Fig. 1, except-  
60 ing that it shows a draft-board which is of the ordinary concave shape, but which is loosely mounted upon its supports, so that it can be vibrated thereon by the blows of the knocker affixed to the vibrating sieve beneath it. 65

In the fur-blower represented in the drawings the uncleaned fur is supplied from the apron A to the feed-rollers B B, which feed it to the rapidly-rotating picker-cylinder C. The picker-teeth C' C', &c., catch the fur, pull it  
70 apart, and throw it diagonally downward and forward toward the draft-board D. A suitably-strong current of air is maintained between the picker-cylinder and the draft-board, by which the light flocculent fur is blown diagonally upward and forward through the vacant  
75 space in front of the picker-cylinder and deposits itself upon the surface of the bat-apron E. The hair and dirt, being heavier than the fur, fall by their own gravity to the inclined  
80 sieve F, to which vibrating motion is given by means of the wiper-cam G. When the draft-board is concave, like those heretofore used, portions of its curved surface are not  
85 always swept by the air-current, and in such case some fur which falls out of the air-current collects upon the concave surface of the draft-board until, either by a change in the path of  
90 the air-current or by reason of its increase in bulk, the bunch of fur thus collected is caught by the current and blown forward and deposited bodily upon the bat-apron. This result, which is of very rare occurrence when the  
95 draft-board is flat and is inclined at an angle of thirty degrees, as shown in Fig. 1, is of comparatively frequent occurrence when the draft-board has the transversely-concave form of those heretofore used; but by giving to the draft-board vibratory movements toward and  
100 from the picker-cylinder any fur which is lying



upon the surface of the draft-board is elevated or thrown upward into the current, and is thus not permitted to remain at rest out of the current for a sufficient length of time to cause its collection into bunches.

Any convenient means can be employed for imparting the desired vibratory movements to the draft-board, and when a vibrating sieve is employed in the machine the necessary vibrations may be imparted to the draft-board by means of one or more arms, *e*, affixed to and projecting upward from the sieve and adapted to strike against the under side of the draft-board just before the conclusion of their upward movement, as shown in the drawings. Under such circumstances the arm *e* acts as a knocker, and to enable the draft-board to receive the desired vibratory movements each end of it is mounted in an upwardly yielding bearing or in a loose seat, *d*, upon the bottom of which it is normally held by expanding spiral springs *d'* *d'*, as shown in Fig. 2.

Vibratory movements may be imparted to the flat draft-board, but ordinarily will not be necessary if the flat board be correctly adjusted with relation to the picker-cylinder. An example of such correct adjustment is illustrated in Fig. 1, which represents a picker-cylinder *C*, composed of a drum three inches in diameter provided with picker-teeth *C'*, which each project radially half an inch from the surface of the drum. The upper surface of the bat-apron *E* is in horizontal alignment with the axis of the picker-cylinder, and the clear space between the circle described by the points of the picker-teeth *C'* and the surface of the bat-apron roller *E'* is about two inches in width. The clearance between the points of the teeth and the inclined surface of the draft-board *D*

is about five-eighths of an inch. The upper part of the draft-board extends about half-way across the space between the picker-cylinder and the bat-roller *E'*, the upper surface of the draft-board being transversely inclined at an angle of thirty degrees from the horizontal.

The machine is provided with the usual blower, and the path of the fur is indicated by the arrows in Fig. 1.

It will of course be understood that the surface of the draft-board, instead of being perfectly flat, may be in a transverse direction slightly concave, or it may be convex, without departing from the first part of the invention, the essential feature of which is that the draft-board shall not present a concavity of such depth that the fur lodged thereon can remain for any great length of time out of the current.

What is claimed as the invention is—

1. The combination, in a fur-blower, of the picker-cylinder and the bat-belt with a flat draft-board the surface of which is transversely inclined at an angle of about thirty degrees from the horizontal, and which is arranged at a suitable distance below the axis of the picker-cylinder and extends at its upper edge partially across the space between the picker-cylinder and the adjoining bat-belt roller, substantially as shown and described.

2. The combination, in a fur-blower, of the picker-cylinder with a draft-board arranged beneath the level of the picker-cylinder, and means for imparting vibratory movements to the said draft-board, as and for the purpose set forth.

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Witnesses:

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