

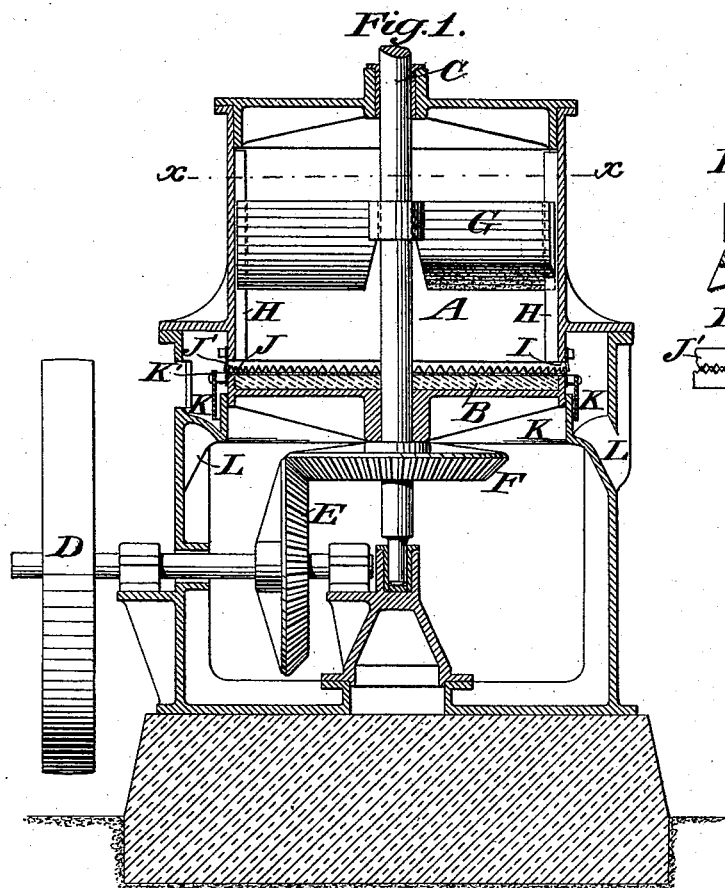
(No Model.)

2 Sheets—Sheet 1.

R. G. DE VASSON.  
MACHINE FOR THE REDUCTION OF CORK, &c.

No. 490,817.

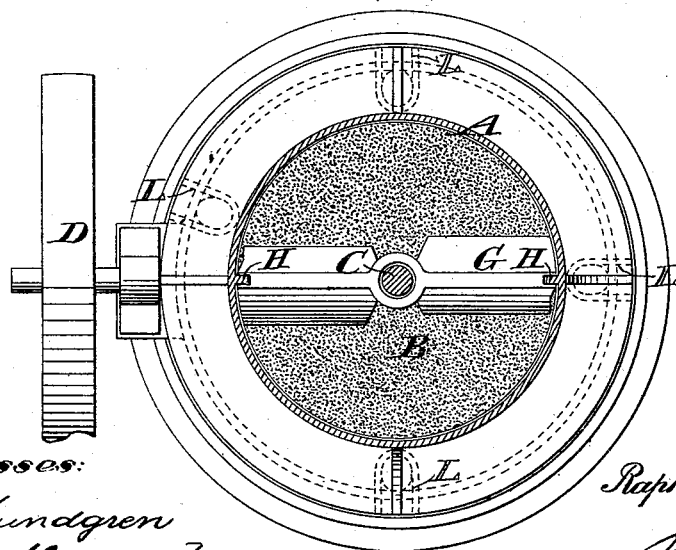
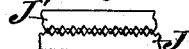
Patented Jan. 31, 1893.



*Fig. 3.*



*Fig. 4.*



Witnesses:

C. Sundgren  
H. H. Hayward

Inventor:  
Raphael Gerard de Vasson  
by attorneys  
Brown & Howard

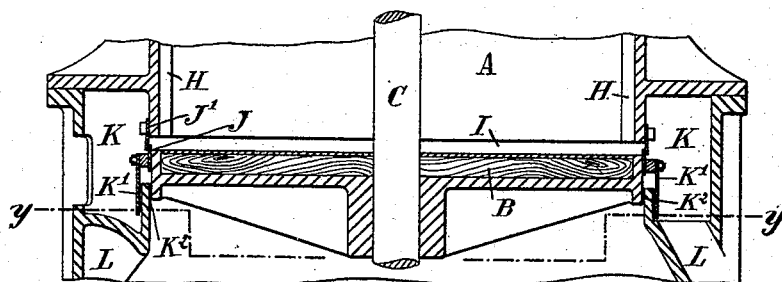
R. G. DE VASSON.

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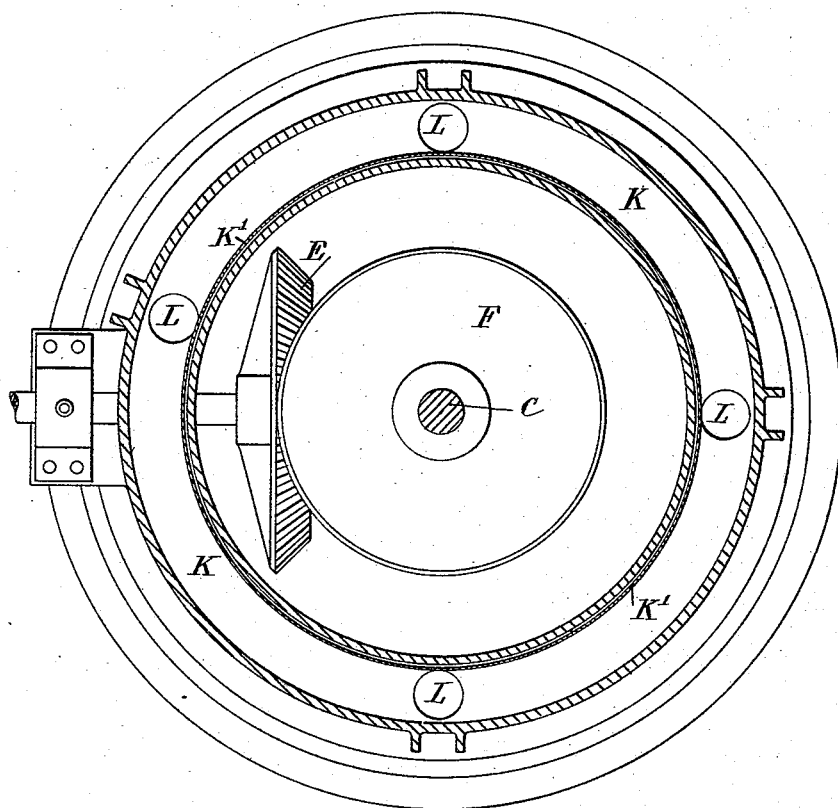
No. 490,817.

Patented Jan. 31, 1893.

*Fig. 5.*



*Fig. 6.*



*Witnesses:*  
*George Barry.*

*Wm. H. H. H. H. H.*

*Inventor:*  
*Raphael Girard de Vasson*  
*by attorneys*  
*Robert Seward*

# UNITED STATES PATENT OFFICE.

RAPHAËL GIRARD DE VASSON, OF PARIS, FRANCE, ASSIGNOR TO THE LA SUBÉRINE, OF SAME PLACE.

## MACHINE FOR THE REDUCTION OF CORK, &c.

SPECIFICATION forming part of Letters Patent No. 490,817, dated January 31, 1893.

Application filed June 9, 1892, Serial No. 436,078. (No model.) Patented in France January 22, 1889, No. 195,535, and February 25, 1889, No. 196,284; in England July 14, 1890, No. 10,962, and in Belgium January 24, 1891, No. 93,532.

*To all whom it may concern:*

Be it known that I, RAPHAËL GIRARD DE VASSON, of the city of Paris, in the Republic of France, have invented a new and useful  
5 Improvement in Machines for the Reduction of Cork and other Substances to Fragments of all Degrees of Fineness, (for which I have obtained patents in the following countries: Great Britain, No. 10,962, dated July 14, 1890;  
10 Belgium, No. 93,532, dated January 24, 1891; France, No. 195,535, dated January 22, 1889, and No. 196,284, dated February 25, 1889,) of which the following is a specification.

This invention is especially designed for  
15 the reduction of cork to powder or to fragments of such degrees of fineness as may be necessary for its incorporation with an agglutinant into a plastic composition.

I will proceed to describe my invention with  
20 reference to the accompanying drawings, in which

Figure 1 represents a vertical section of a machine embodying my invention. Fig. 2 represents a horizontal section in the line  $xx$   
25 of Fig. 1. Fig. 3 is a transverse sectional view of a traverse which constitutes part of the machine. Fig. 4 is a detail side view which will be hereinafter explained. Fig. 5 represents a vertical section on a larger scale than Fig. 1, of some of the principal operative parts of the machine. Fig. 6 is a horizontal  
30 section in the line  $yy$  of Figs. 1 and 5.

Similar letters of reference designate corresponding parts in all the figures.

35 As may be seen in the drawings there is fast upon a shaft C, preferably vertical, a disk B of metal or other suitable material, the upper face of which is furnished, to form a working surface, with rasping sectors composed of  
40 an agglomerated matter which will be hereinafter described. Above this disk there is to be kept a layer, two or three inches thick for example, of coarsely broken cork which is to be disintegrated or reduced to powder by  
45 the machine, and which is by preference to be fed continuously. This layer of cork is surrounded with a fixed cylinder or circular curb A which has a diameter slightly larger than the rasping disk above mentioned and  
50 which does not reach quite down to the upper

face of the sectors with which the said disk is furnished so that an inner circular passage I is left between the said disk and cylinder for the exit of the granulated or powdered cork produced. This passage is furnished  
55 with annular saw blades J J' of which one J is affixed to the periphery of the rotary rasping disk B and the other J' to the fixed curb or cylinder A. These saw blades overlap each other, as is shown in Fig. 4, which is a face  
60 view of parts of the two blades, so that the reduced cork is forced to pass between their teeth to deliver itself to a surrounding circular trough K as fast as it is produced. In  
65 this circular trough there hangs an annular metal curtain or band K' which is affixed to the circumference of the rotary disk B. This curtain or band, without coming in contact with any of the fixed parts of the machine,  
70 descends low enough into the circular trough K to enter into the pulverized cork which the said trough contains, and thus forms a joint, analogous to a hydraulic joint, which prevents the said cork from getting between the disk and the inner wall K<sup>2</sup> of the circular trough  
75 and thus causing such choking or friction as would prevent the free and proper working of the machine. High enough above the rasping disk to admit below it a layer of cork to be rasped is arranged a traverse G of metal  
80 or other suitable material which is faced with the same agglomerated rasping matter as the rotating disk and which has an opening in its center through which the shaft C passes but which does not turn with the said shaft. The  
85 said traverse, which is contained within the cylinder A, is free to move lengthwise of the shaft in guides H H formed in the walls of the cylinder. The said traverse is broadened toward its two extremities so that in a plane  
90 parallel with the rotary disk B, it forms two sectors. In its vertical transverse section, each of these sectors has at its bottom a beveled face as shown in Fig. 3 whereby under  
95 the influence of the driving action produced by the rotary movement of the disk B, the cork is engaged under the said sectors. The shaft C and the disk which it carries are driven by the driving pulley D through the  
100 intermediation of bevel gears E F.

To obtain the material for the facing of the rasping disk B and the upper traverse G, I agglomerate or make a composition of powdered silex, emery or any other hard powder, 5 metal filings for example, or two or more of them by agglomerating them with sirupy silicate of potash or soda.

What I claim as my invention is:

1. In a machine for reducing cork to fine 10 fragments, the combination with the central rotary shaft C and the rasping disk B attached thereto and furnished with sectors faced with suitable rasping composition, of the non-rotary pressing traverse furnished with beveled 15 sectors faced with similar composition, the fixed cylinder or curb A, and the saw blades J and J' attached respectively to the said

disk and to said cylinder or curb, all substantially as herein set forth.

2. The combination of the fixed cylinder or 20 curb A, the stationary circular trough K, the rotary disk B and the saw blades J and J' attached respectively to said disk and to said cylinder or curb, and the annular curtain or band affixed to said disk and dependent there- 25 from within the said trough, substantially as and for the purpose herein set forth.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

RAPHAËL GIRARD DE VASSON.

Witnesses:

ROBT. M. HOOPER,  
HENRY THIESSE.