

No. 888,445.

PATENTED MAY 19, 1908.

E. KNIPS.
CLEANER FOR SIEVES.
APPLICATION FILED APR. 30, 1906.

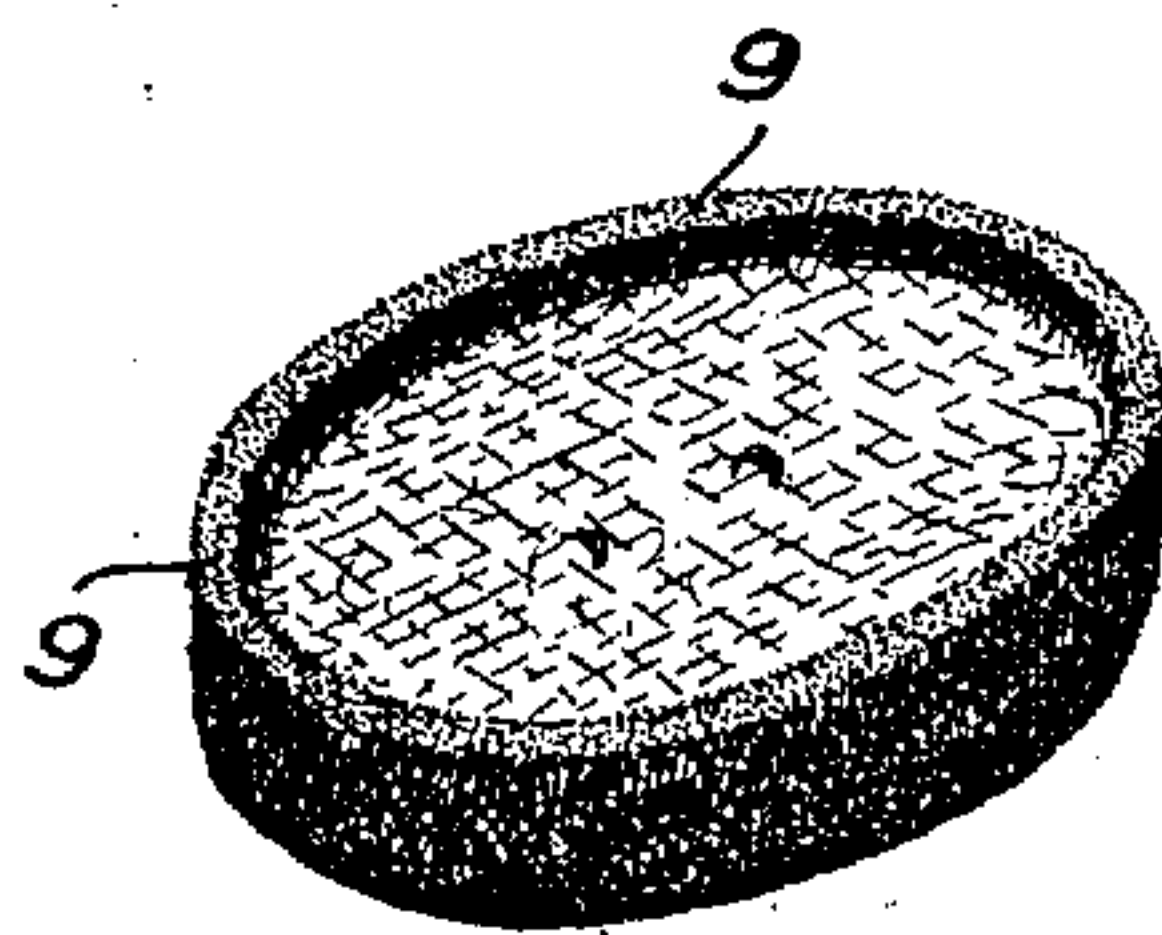
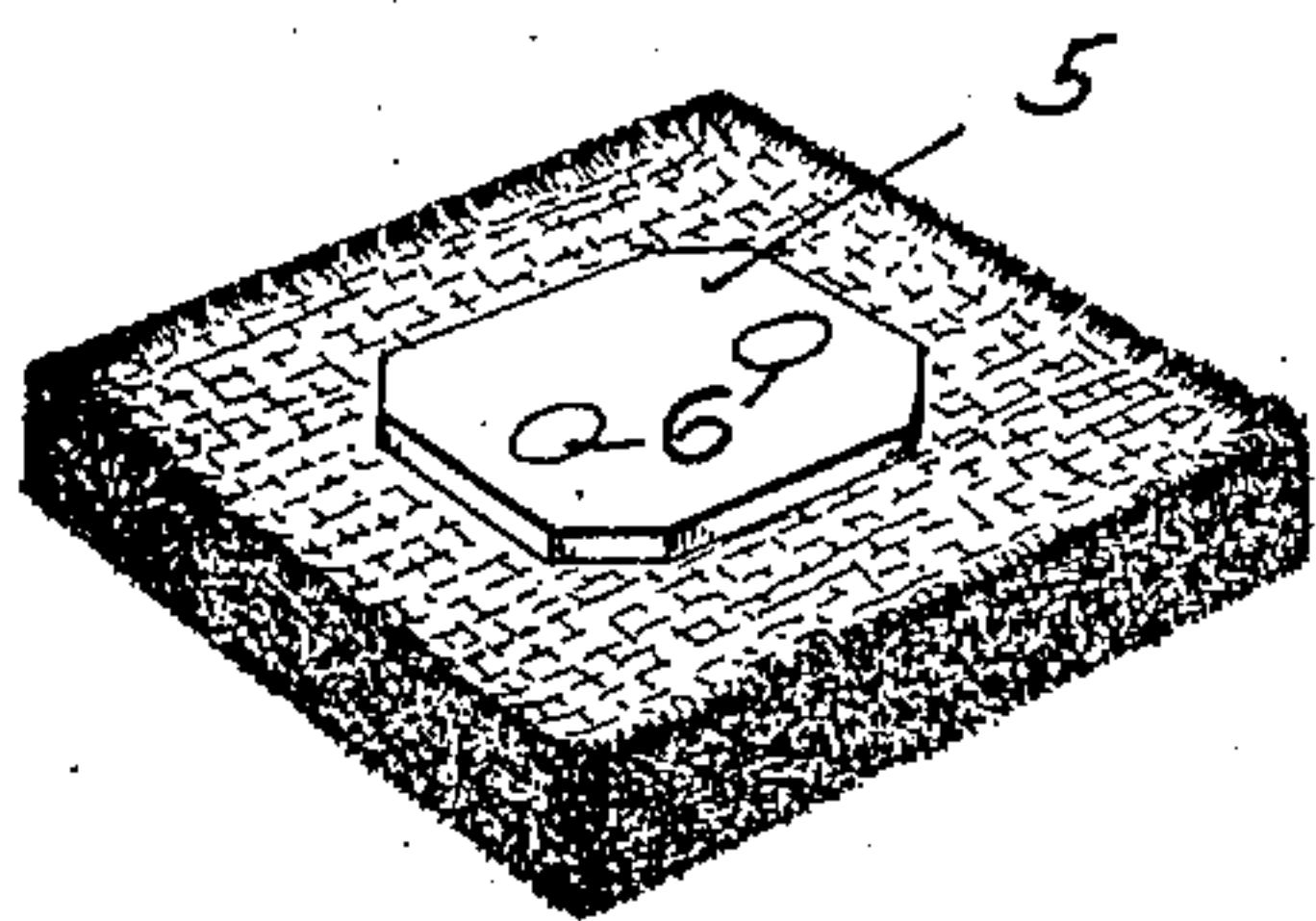
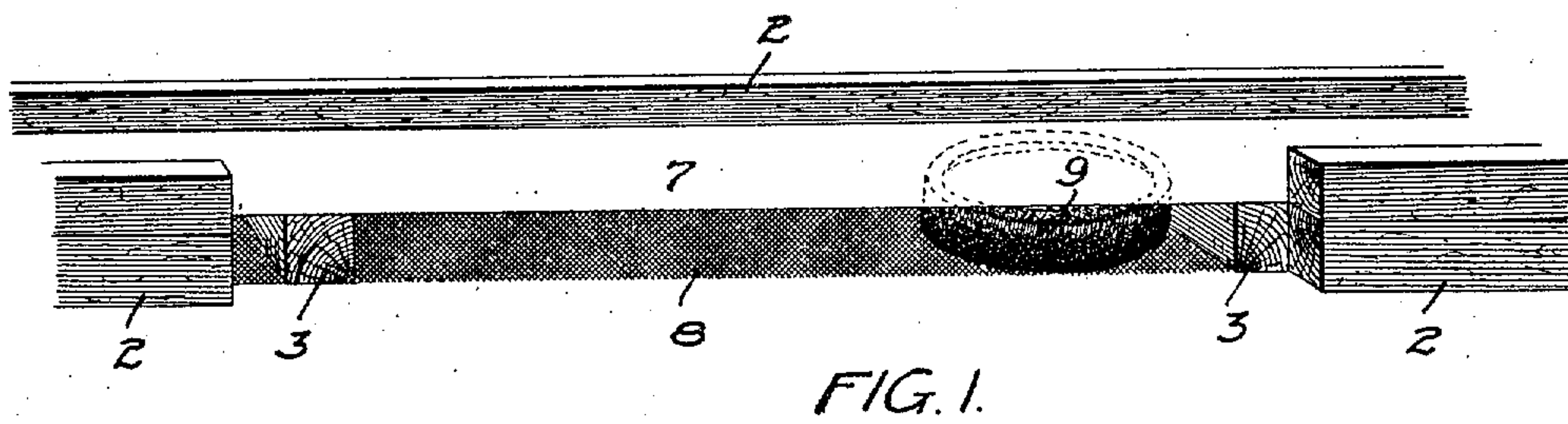


FIG. 4.

FIG. 3.

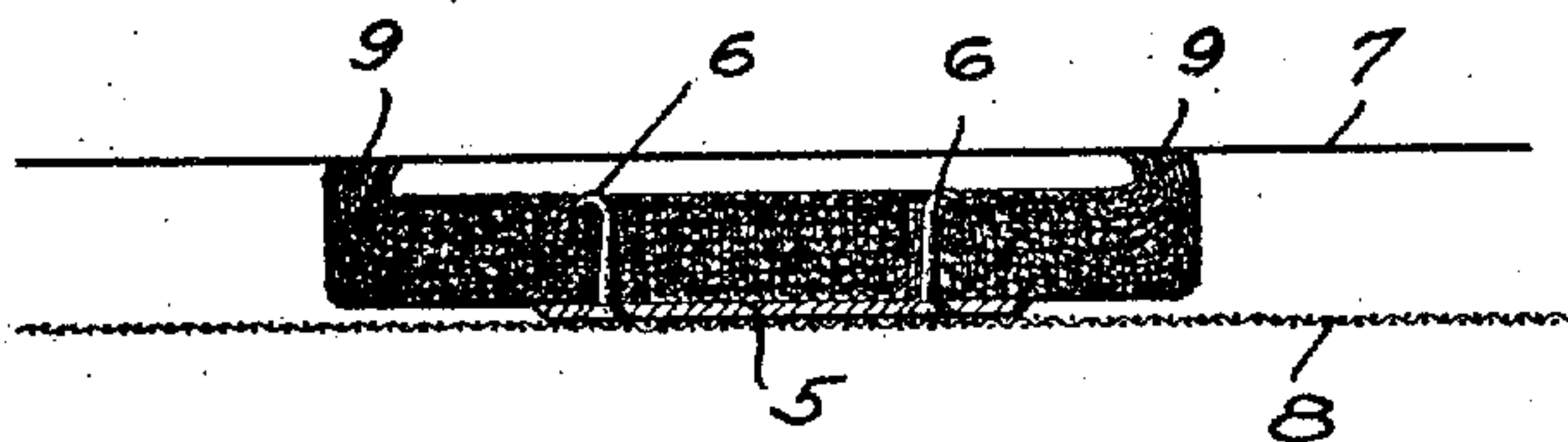


FIG. 2.

WITNESSES
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UNITED STATES PATENT OFFICE.

EMIL KNIPS, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-HALF TO JAMES PYE, OF MINNEAPOLIS, MINNESOTA.

CLEANER FOR SIEVES.

No. 888,445.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed April 30, 1906. Serial No. 314,518.

To all whom it may concern:

Be it known that I, EMIL KNIPS, of Minneapolis, county of Hennepin, State of Minnesota, have invented certain new and useful
5 Improvements in Cleaners for Sieves, of which the following is a specification.

This invention relates to cleaning devices for shaking or gyratory sieves used in flour mills, and particularly to improvements in
10 cleaners or brushes which travel in engagement with the bolting cloth and have motion imparted to them through the shaking or gyratory movements of the sieve frame.

The object of the invention is to provide a
15 brush or cleaner which will retain its cleaning or brushing surface in contact with the under surface of the bolting cloth as the brush or cleaner wears away, thereby retaining the efficiency of the brush or cleaner until
20 the brush is entirely worn out.

The invention consists generally in a brush or cleaner formed of a small sheet section of flexible material having an upturned edge constituting a brushing or cleaning surface.

25 The invention consists further in the constructions and combinations hereinafter described and particularly pointed out in the claims.

In the accompanying drawings, forming
30 part of this specification, Figure 1 is a perspective view of a portion of a bolting frame with the side rail cut away showing my improved brush or cleaner in position for operation upon the under surface of the bolting
35 cloth. Fig. 2 is a section through the brush or cleaner showing also the bolting cloth and the brush supporting material. Fig. 3 is a perspective view of one of my improved brushes or cleaners. Fig. 4 is a perspective
40 view of one of my improved brushes or cleaners, the same being shown upside down.

In the drawings, 2 represents a portion of the frame of a bolting machine. This frame is preferably divided into sections by the
45 bars 3.

My improved brush consists of a small section of flexible material, preferably formed of woven fabric or webbing of suitable thickness. I prefer to use for this purpose thick cotton
50 webbing such as is employed for belting for driving machinery. Each brush or cleaner consists of a small section of this material having raw edges. In practice I generally

employ for each brush a piece of the fabric about two inches or two and one-half inches
55 square. To the under side of each brush I also prefer to secure a small base plate 5, formed of leather and secured to the cleaner by suitable tacks or rivets 6. Each sieve frame is provided with the bolting cloth 7
60 and with a supporting fabric 8 arranged at a short distance below said bolting cloth and the brushes or cleaners are arranged between the bolting cloth and the supporting fabric. This supporting fabric is preferably formed
65 of wire cloth having a coarse mesh so that the material passing through the bolting cloth also passes readily through this supporting fabric. The brushes or cleaners are placed upon the supporting fabric 8 and as the bolt-
70 ing frame is agitated or given a gyratory motion the cleaners are thrown against the edges of the side rails and bars and thereby the edges of the fabric are turned upward so as to form a brush or cleaning edge or surface
75 9 that sweeps across the under surface of the bolting cloth and keeps the meshes of said cloth clear.

While the brushes or cleaners are usually of rectangular form when put into the ma-
80 chine the corners soon become worn off and the brushes then assume the circular or oval form shown in Figs. 1 and 3 of the drawings. As the use of the brushes or cleaners continues the brushing surface is continuously
85 renewed by the continued upturning of the edge of the cleaner caused by its impact against the cross bars or rails of the sieve frame and this continues until the cleaners or brushes are reduced to a very small frac-
90 tion of their original size, when they may be removed and others substituted therefor.

While I have shown and described the cleaner as resting upon the supporting fabric preferably formed of wire cloth, it will be
95 understood that this supporting fabric may be omitted if preferred and the brush may be supported directly upon a solid deck or upon any other suitable support by which it will be held in proper position to operate on the
100 under side of the bolting cloth.

I do not limit myself to any particular size of brush or cleaner or to any particular material therefor, it being necessary only that a section of suitable sheet fabric or material be
105 employed with the edges of such fabric or

material capable of being turned upward by impact against the bars or rails of the sieve frame.

I claim as my invention:

5 1. The herein described cleaner for shaking or gyratory sieves consisting of a section of sheet material having free edges adapted to be upturned above the face of the material in the operation of the cleaner to constitute
10 a cleaning or brushing surface, substantially as described.

2. The herein described cleaner for shaking or gyratory sieves consisting of a section of woven fabric having free edges adapted to
15 be upturned above the face of the fabric in the operation of the cleaner to constitute a brushing surface, substantially as described.

3. The combination, with a sieve frame provided with a sieve surface and a brush
20 supporting surface arranged below said sieve surface, of a cleaner supported upon said

supporting surface and consisting of a section of sheet material having free edges adapted to be upturned above the face of the material by impact with the bars or rails of the sieve
25 frame.

4. The combination, with a sieve frame provided with a sieve surface and a brush supporting surface arranged below said sieve surface, of a brush or cleaner supported upon
30 said supporting surface and consisting of a section of woven fabric having raw or free edges adapted to be upturned above the face of the fabric by impact with the bars or rails of the sieve frame, substantially as described. 35

In witness whereof, I have hereunto set my hand this 26th day of April 1906.

EMIL KNIPS.

Witnesses:

A. C. PAUL,
J. H. BALDWIN.