

F. RITTER.
 DEVICE FOR CLEANING KNIVES, FORKS, &c.
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995,570.

Patented June 20, 1911.

Fig. 1.

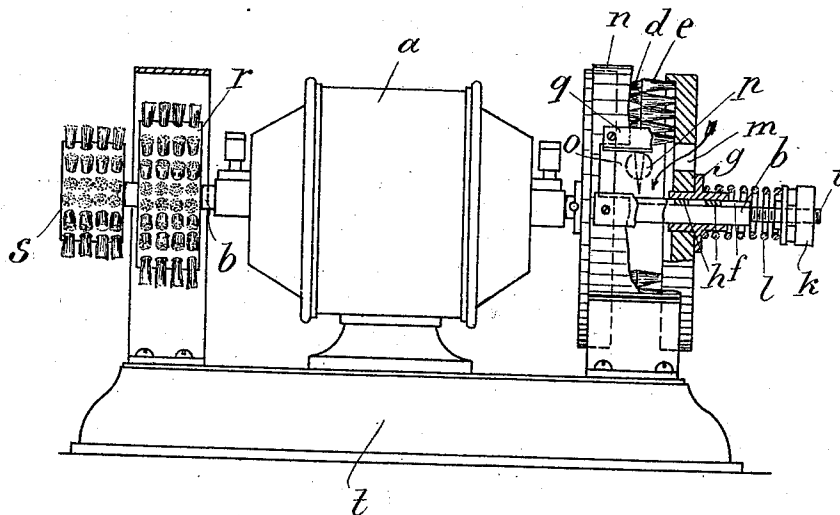
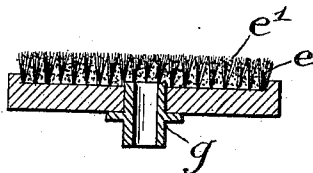


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

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DEVICE FOR CLEANING KNIVES, FORKS, &c.

995,570.

Specification of Letters Patent. Patented June 20, 1911.

Application filed March 25, 1910. Serial No. 551,463.

To all whom it may concern:

Be it known that I, FRANZ RITTER, a citizen of Germany, residing at Munich, Bavaria, Germany, have invented certain new and useful Improvements in Devices for Cleaning Knives, Forks, and the Like; 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.

The present invention relates to a device for cleaning knives, forks and the like, in which this is accomplished in known manner by means of rotating brushes.

My invention relates to an apparatus for cleaning knives, forks and the like, and has especial reference to an apparatus of this character wherein opposed brushes are employed to clean and polish the articles in one operation.

The primary object of the invention is to provide a structure wherein the brushes are so supplied with a combined cleaning and polishing medium that the operative surfaces of the brushes will take on the characteristics of a soft cleaning and polishing stone, while below the operative surfaces and between the bristles there will be a supply of pasty material which is fed forward to take the place of that worn off the operative brush surfaces.

Heretofore in machines of this general character the dry emery powder or like cleaning material was sprinkled at intervals between the brushes, or fed in various ways to the faces of the leather or like cleaning or polishing disks. The consumption of cleaning material was very large, as the emery powder or the like had to be constantly introduced; and the operation of these machines was rendered somewhat expensive by the fact that the polishing disks were frequently cut by the knives being cleaned and had to be replaced by fresh ones, which are comparatively expensive, and also by the fact that much cleaning material was consumed.

According to my invention the rotary disk brushes are thoroughly saturated with the pasty cleaning material formed of emery powder and grease, so that all the interstices between the bristles are filled up, and

the brush, after the paste has set, forms to a certain extent a soft cleaning stone with bristle or brush insertions.

The cleaning medium composed of emery and grease is applied by being first warmed, and the brushes simply immersed so far in the mass that the whole of the interstices between the bristles are filled with the cleaning material.

According to the present invention these disadvantages are done away with by embedding the brushes in a paste-like mass, consisting of emery powder and a fatty substance made warm, so that said brushes are completely surrounded by the mass. This mass will, when cold, form a kind of soft polishing disk, on the surface of which a layer of emery powder will appear during use. By this means the knives or other utensils can be cleaned and polished simultaneously, only one action being necessary for both processes. Thus special leather polishing disks are unnecessary and a great saving of time is effected; also the consumption of emery powder is exceedingly small.

The invention is illustratively exemplified in the accompanying drawing, wherein—

Figure 1 is a partial elevational and partial sectional view of my invention; and Fig. 2 is a sectional detail view hereinafter referred to.

a is the driving means of any kind desired, for instance, an electric motor, which operates the shaft *b*. For cleaning knives two brush disks *d*, *e*, are arranged with the brush surfaces opposing each other, one brush *d* being rigidly connected to the shaft *b*, while the other brush *e* is movable in the axial direction on the shaft, the latter being provided with a groove *f*, in which the projections *h* of the brush hub *g* engage. At one end of the shaft is a screw thread *i* with nut *k* and if considered necessary a counter nut. Between the nut *k* and the hub *g* is arranged a coil-spring *l*, in such manner that by adjusting the screw nut *k* the pressure of the brush *e* against brush *d* can be regulated, so that the brushes appear as shown in Fig. 2, wherein the mass with which the brushes are saturated is indicated at *e'*. The brush disk *e* is provided with an opening *m* for the insertion of emery

powder or the like cleaning means which may be passed in in the direction of the arrow. The protective casing *n* contains an aperture *o* for the insertion of the knife *p* 5 between the brush disks *d* and *e*. For securely holding the knives in position during cleaning a rest piece *q* is arranged above the opening *o*. For cleaning forks two brushes *r*, *s* may be advantageously arranged at the 10 other end of the shaft *b*. The brush *r* may be provided with the cleaning means, for instance, emery powder mixed with a fatty substance, while the brush *s* runs dry and is used for giving the forks the necessary 15 finish.

The knives are cleaned in the usual way by inserting them between the brushes *d* and *e* and moving them backward and forward while the brushes are rotated.

20 The application of the cleaning means to the brush is effected by warming said mass until it becomes more or less liquid and then steeping the brush in the mass until all interstices between the bristles are filled up.

25 In use the outer surface of the brush disks will always remain harder and drier than

the inner parts, thus cleaning and polishing the knives simultaneously.

Brushes to which the mass has once been applied will not need a second treatment. 30

If necessary, dry emery powder may be added occasionally through the opening *m*.

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

In a machine adapted to simultaneously 35 clean and polish cutlery, the combination of a pair of brushes presenting opposed operative surfaces, each said brush being thoroughly saturated with a pasty cleaning and polishing means whereby the operative sur- 40 faces will have the characteristics of a soft stone with bristles therein, and means for actuating said brushes to clean and polish cutlery held between the operative surfaces 45 of the brushes.

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

FRANZ RITTER.

Witnesses:

LOUIS MUELLER,
MATHALDE K. HELD.