

(No Model.)

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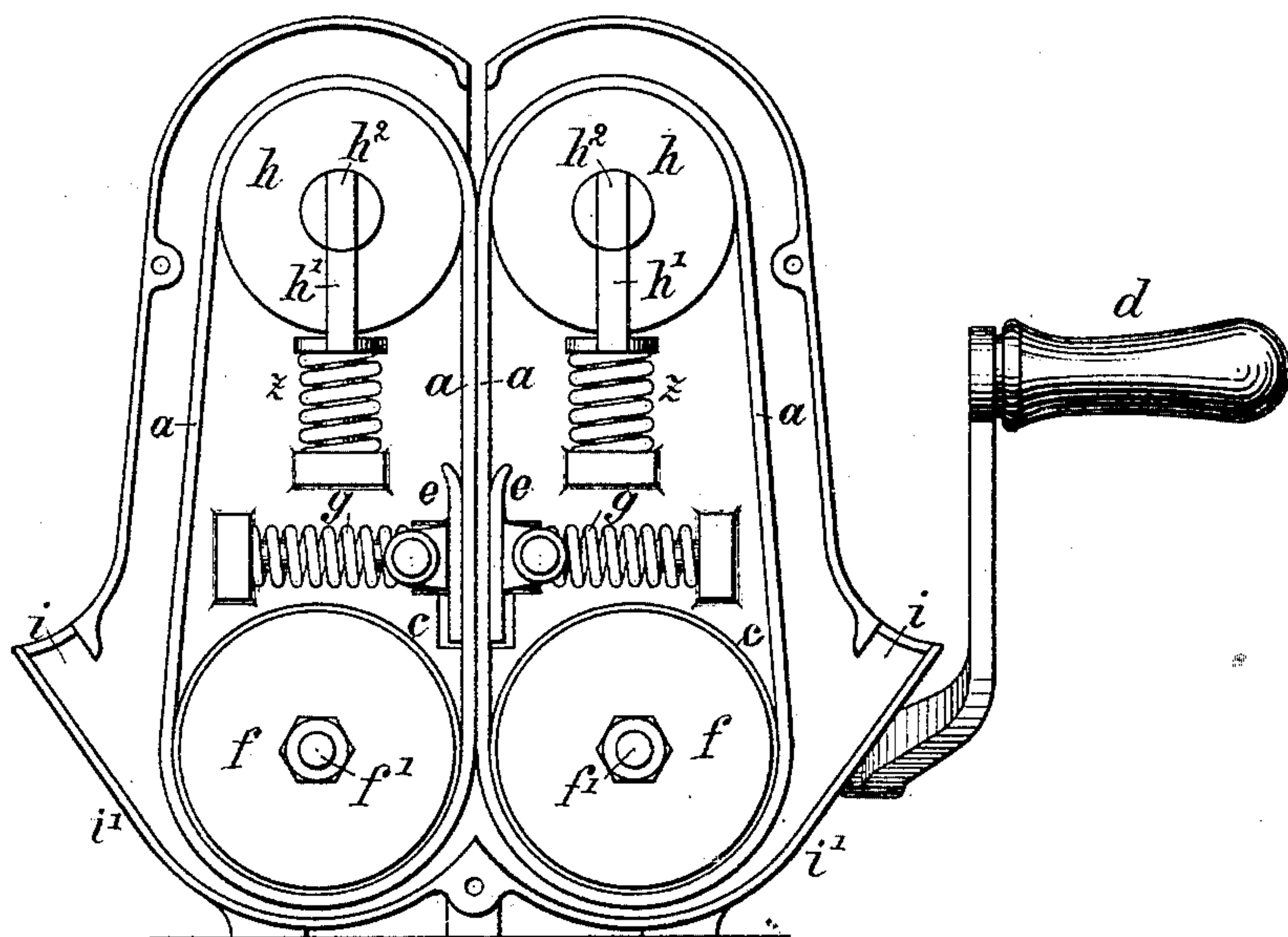
H. A. H. GUHL.

MACHINE FOR CLEANING AND POLISHING KNIVES.

No. 339,095.

Patented Mar. 30, 1886.

*Fig. 1.*



*Witnesses:*  
*C. J. Beers.*  
*H. W. J. Jenner.*

*Inventor:*  
*Heinrich August Hermann Guhl,*  
*By Raimund Ladd,*  
*Attys.*

(No Model.)

3 Sheets—Sheet 2.

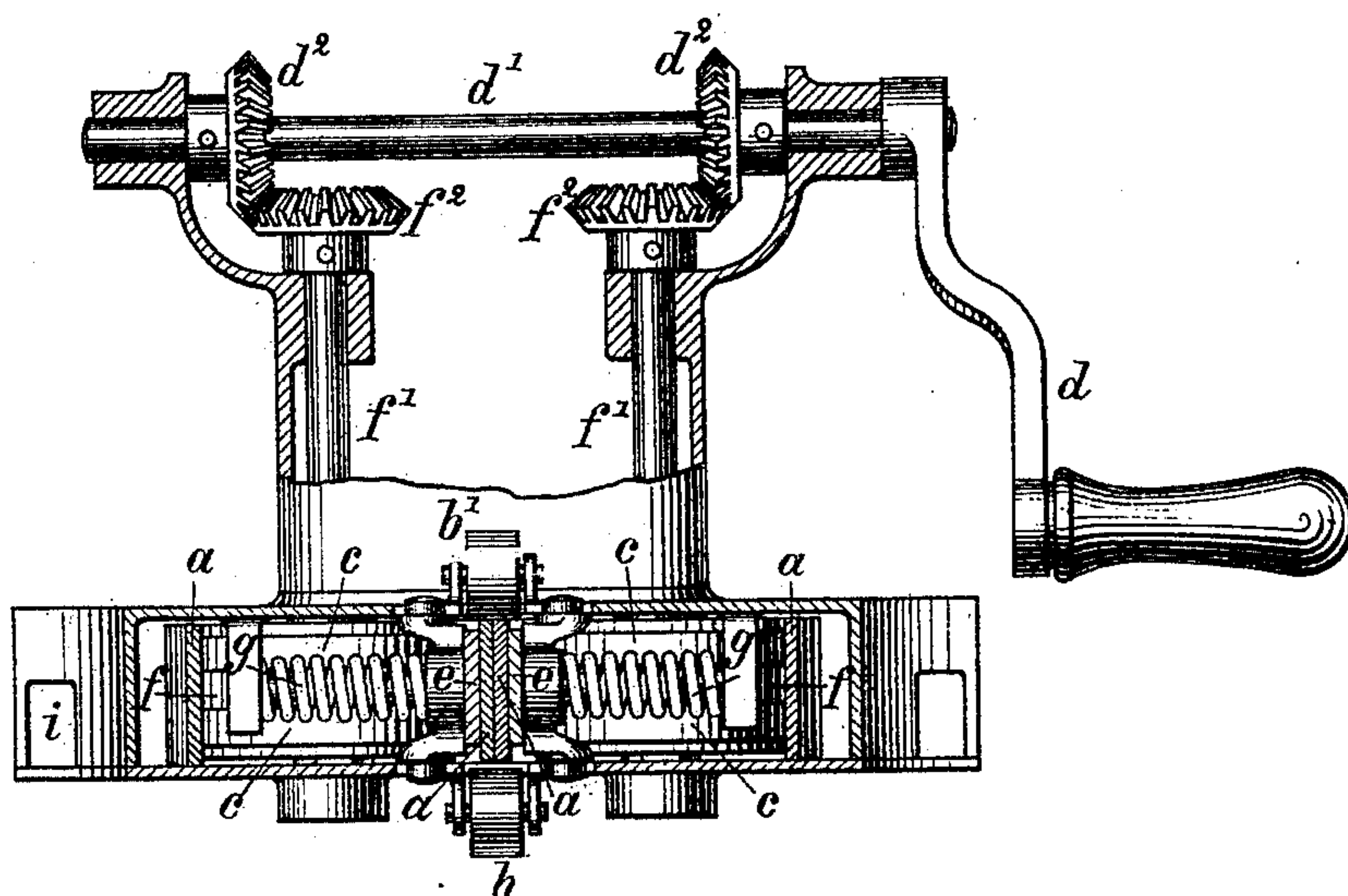
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*Fig. 2.*



*Witnesses:*

*C. J. Belr.*

*H. W. T. Jenner.*

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*Attys.*

(No Model.)

3 Sheets—Sheet 3.

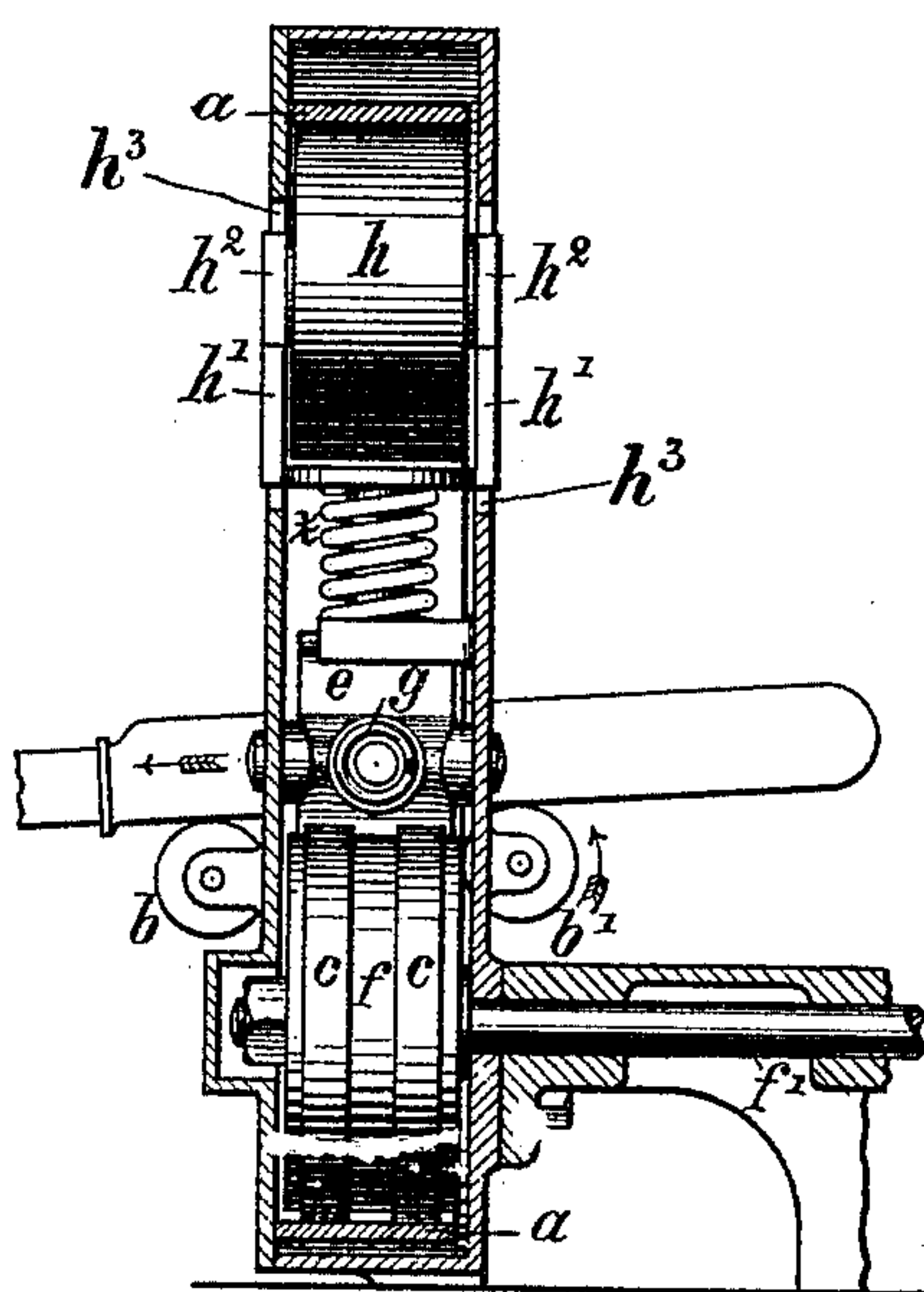
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*Fig. 3.*



Witnesses:

C. T. Bell.

H. W. Jenner.

Inventor:

Heinrich August Hermann Guhl.

By Rainer & Son,

Attys.



# UNITED STATES PATENT OFFICE.

HEINRICH AUGUST HERMANN GUHL, OF HAMBURG, GERMANY.

## MACHINE FOR CLEANING AND POLISHING KNIVES.

SPECIFICATION forming part of Letters Patent No. 339,095, dated March 30, 1886.

Application filed October 30, 1885. Serial No. 181,396. (No model.)

*To all whom it may concern:*

Be it known that I, HEINRICH AUGUST HERMANN GUHL, a subject of the German Emperor, and a resident of Hamburg, in the German Empire, have invented certain new and useful Improvements in Machines for Cleaning and Polishing Knives, of which the following is a specification.

My invention relates to improvements in machines for cleaning and polishing knives; and the objects of my improvements are, first, to clean or polish the knives between two endless straps or belts; second, to provide means for increasing the friction of such endless straps or belts upon their driving-pulleys; third, to guide the blade of the knife to be cleaned or polished in its whole length between the endless straps or belts; and, fourth, to supply the cleaning or polishing material automatically to the endless straps or belts. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a machine provided with my improvements, the front cover being removed therefrom to show the working parts. Fig. 2 is a top view thereof partly in section, and Fig. 3 a side elevation of the working parts partly in section.

Similar letters refer to similar parts throughout the several views.

Two endless straps or belts, *a a*, are drawn over the pulleys *f* and rollers *h* in such a manner as to run for a part of their length parallel to each other. The pulleys *f* are rotated by means of a hand-crank, *d*, or other suitable means, acting upon a shaft, *d'*, whereon two bevel-wheels, *d<sup>2</sup>*, are fixed. The wheels *d<sup>2</sup>* engage into two other bevel-wheels, *f<sup>2</sup>*, attached to the parallel shaft *f'*, arranged rectangularly to the main shaft *d'*. The pulleys *f* are keyed or otherwise fastened to the shafts *f'*.

The pivots *h<sup>2</sup>* of the rollers *h* are supported by forks *h'*, which, by means of springs *z*, are held in such position as to keep the belts *a* always tightly stretched. The ends of the pivots *h<sup>2</sup>* and the forks *h'* are guided by vertical slits *h<sup>3</sup>* of the shell of the machine. Two

plates, *e*, influenced by the springs *g*, press the belts *a* closely together, the springs *g* and plates *e* being placed inside the space inclosed by the belts *a*.

The blade of the knife to be cleaned or polished is placed between the straps or belts *a* upon the rollers *h* in such a manner as to touch nearly with its handle the edges of the belts or straps. As the roller *h* is in contact with the edges of the running belts *a*, a solid motion is imparted thereto, which causes the blade to pass for its entire length between the belts *a* at the place where they are pressed together by the springs *g* and plates *e*.

The polishing or cleaning material—as, for instance, sand, emery, tripoli, &c.—is supplied through the openings *i* of the shell inclosing the working parts of the machine. As the walls *i'* of the shell are inclined toward the pulleys *f*, the cleaning or polishing material will descend by consequence of its own weight that it may be taken up by the outer surface of the belts *a*.

In order to increase the friction of the belts *a* upon the pulleys *f*, each one of the latter is provided with two rings, *c*, of rubber or other elastic material, encircling its periphery in such a manner as to be kept apart from each other.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In a knife-cleaning machine, the combination of two endless belts or straps running partly parallel to each other, yielding abutment-plates for pressing the parallel parts of the belts toward each other, revolving pulleys for driving and supporting the belts, and two rollers for supporting the knife-blade, one of which is in contact with and receives rotary motion from the edges of the said belts, substantially as and for the purpose set forth.

2. In a knife-cleaning machine, the combination of two endless belts or straps running partly parallel to each other, yielding abutment-plates for pressing the parallel parts of the belts toward each other, two rollers

for supporting the knife-blade, one of which is in contact with and receives rotary motion from the edges of the said belts, the rollers *h*, and driving-pulleys *f*, over which the belts  
5 are stretched, and the forks *h'*, and springs *z*, for keeping the said belts tightly stretched, substantially as and for the purpose set forth.  
In testimony that I claim the foregoing as

my invention I have signed my name, in presence of two witnesses, this 12th day of October, 1885.

HEINRICH AUGUST HERMANN GUHL.

Witnesses:

ALEXANDER SPECHT,  
DIEDRICH PETERSEN.