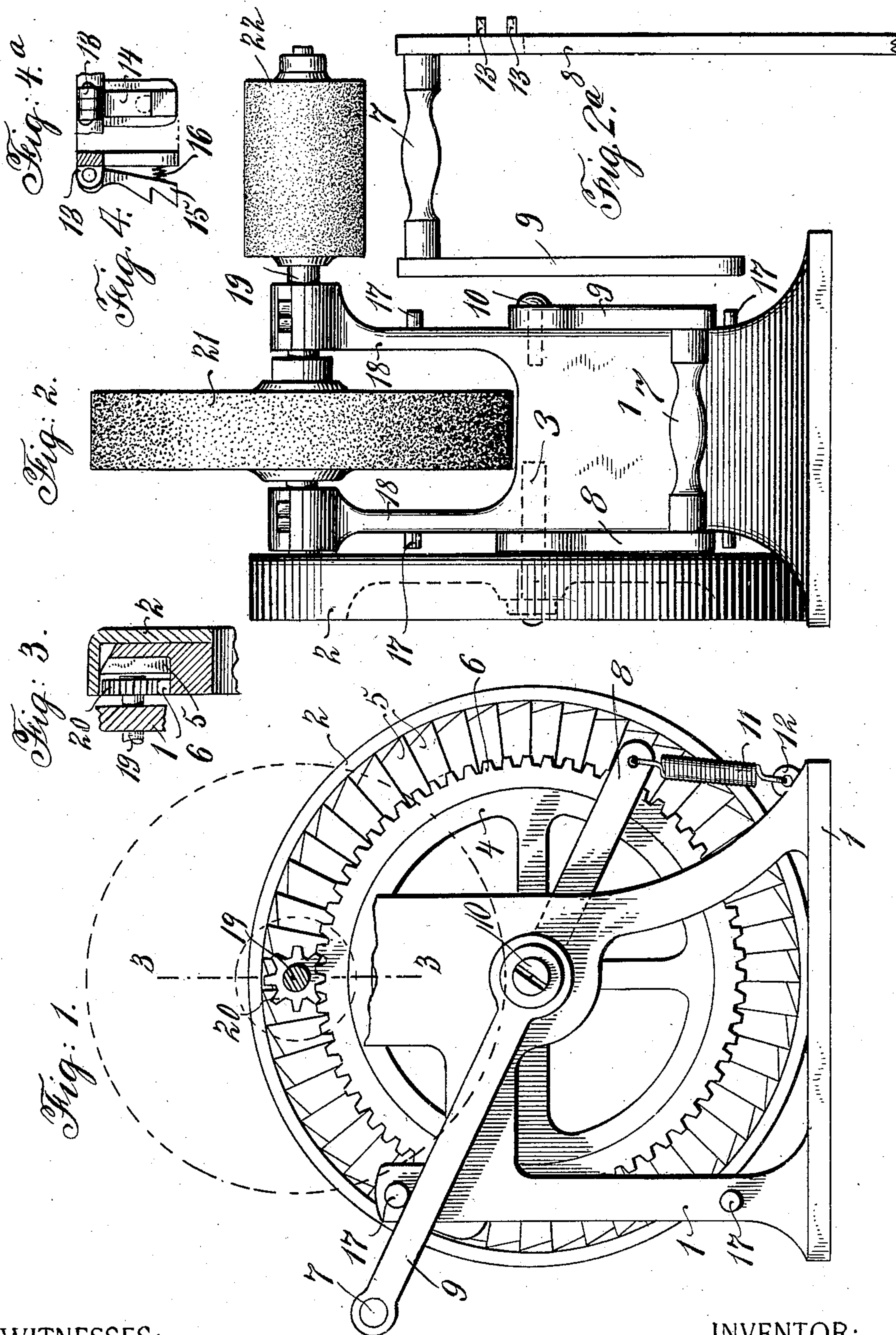


No. 845,073.

PATENTED FEB. 26, 1907.

E. FRANKE.
GRINDSTONE.

APPLICATION FILED OCT. 7, 1905.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EMIL FRANKE, OF ASTORIA, NEW YORK.

GRINDSTONE.

No. 845,073.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed October 7, 1905. Serial No. 281,833.

To all whom it may concern:

Be it known that I, EMIL FRANKE, a citizen of the United States, residing at Astoria, Long Island, in the county of Queens and State of New York, have invented new and useful Improvements in Grindstones, of which the following is a specification.

This invention relates to grindstones.

The principal object of the invention is to improve the construction of such devices.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed as a practical embodiment thereof.

In the accompanying drawings, forming part of this specification, Figure 1 is a side elevation, partly broken away, showing a grindstone constructed in accordance with the present invention. Fig. 2 is an end elevation thereof. Fig. 2^a is an elevation of the yoke-shaped handle. Fig. 3 is a broken sectional view on the line 3-3 of Fig. 1. Fig. 4 is a side elevation of the pawl member. Fig. 4^a is a front elevation of the same.

Like reference-numerals indicate corresponding parts in the different figures of the drawings.

The reference-numeral 1 indicates a suitable framework or support. Mounted on one side of the support 1 is a circular casing 2, which is open on its inner side, as shown in Fig. 1. Disposed in the casing 2 and journaled upon the support 1 by means of a bolt 3 is a wheel 4, which is formed on the inner side thereof with a circular series of ratchet-teeth 5. The wheel 4 is also formed on the inner side thereof with a circular series of gear-teeth 6, which are smaller in diameter than the ratchet-teeth 5.

The wheel 4 is operated by a yoke-shaped handle which comprises a grip portion 7, a long side member 8, and a short side member 9. The side members 8 and 9 of the yoke-shaped handle straddle the support 1, as shown in Fig. 2, the long handle 8 being fulcrumed intermediate its ends upon the bolt 3 and the short handle 9 being fulcrumed at one of its ends upon a bolt 10. Secured to the long side member 8 of the yoke-shaped handle is a spring 11, which is attached at its lower end to an eye 12 upon the support 1. The long handle 8 adjacent to the grip portion 7 is provided with a pair

of lugs 13 and a depending tongue 14. Pivotaly mounted between the lugs 13 is a pawl 15, which is forced into engagement with the ratchet-teeth 5 by means of a spring 16. It will be understood that as the yoke-shaped handle is forced down by the operator of the grindstone the pawl 15 causes the wheel 4 to rotate, and as said handle is automatically drawn upward by the spring 11 the pawl 15 rides idly over the ratchet-teeth 5. The upward and downward movements of the yoke-shaped handle are regulated by limiting-pins 17, mounted upon the support 1.

The support 1 is formed with a pair of upwardly-extending arms 18, on the upper ends of which is journaled a shaft 19. Mounted upon one end of the shaft 19 is a pinion 20, which is intermeshed with the gear-teeth 6 on the wheel 4. The diameter of the pinion 19 is slightly less than the width of the ratchet-teeth 5, as shown in Fig. 1. Mounted upon the shaft 19, between the arms 18, is a grindstone 21, an oilstone 22 being mounted upon the outer end of the shaft, as shown.

The improved device of this invention is strong, simple, durable, and inexpensive in construction, as well as thoroughly efficient in operation.

Minor changes in the size, shape, proportion, and details of construction may be made within the scope of the following claims without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the invention, what is claimed as new is—

1. A grindstone-motor comprising a support, a wheel journaled on said support, said wheel having a circular series of ratchet-teeth on one side thereof and a circular series of gear-teeth smaller in diameter than the ratchet-teeth, a yoke-shaped handle pivoted on a line with the journal of the wheel, one side member of the yoke-shaped handle being extended beyond the other and having a spring connected therewith, a pawl member mounted on the handle to cooperate with the ratchet-teeth, a shaft mounted in the support and having a pinion intermeshed with the gear-teeth of the wheel.

2. A grindstone-motor comprising a support, a circular casing on said support, a wheel disposed in said casing and journaled on said support, said wheel having a circular

series of ratchet-teeth on one side thereof and
a circular series of gear-teeth of smaller di-
ameter than the ratchet-teeth, a yoke-
shaped handle pivoted on a line with the
5 journal of the wheel, one side member of the
handle being extended beyond the other and
having a spring connected therewith, a de-
pending tongue on the long member of the
handle, a spring-pressed pawl mounted on
10 the tongue to coöperate with the ratchet-
teeth, a shaft mounted on the support and

having a pinion intermeshed with the gear-
teeth of the wheel, the diameter of the pin-
ion being slightly less than the width of the
ratchet-teeth.. 15

In testimony whereof I have affixed my
signature in presence of two witnesses.

EMIL FRANKE.

Witnesses:

JOHN STOHL,
BELA KLEIN.