

No. 789,955.

PATENTED MAY 16, 1905.

B. BALIN.
FAN.

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Fig. 1.

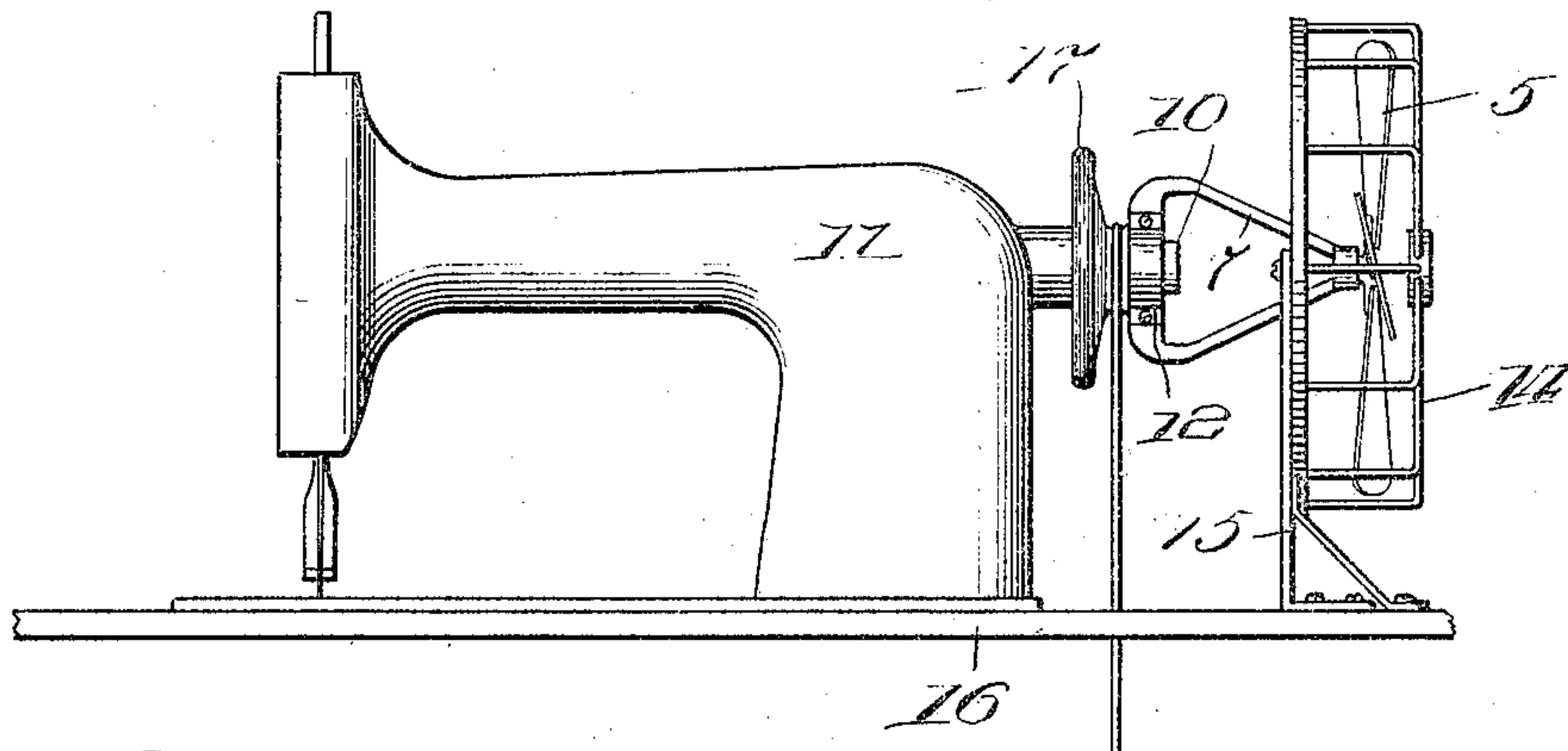


Fig. 2.

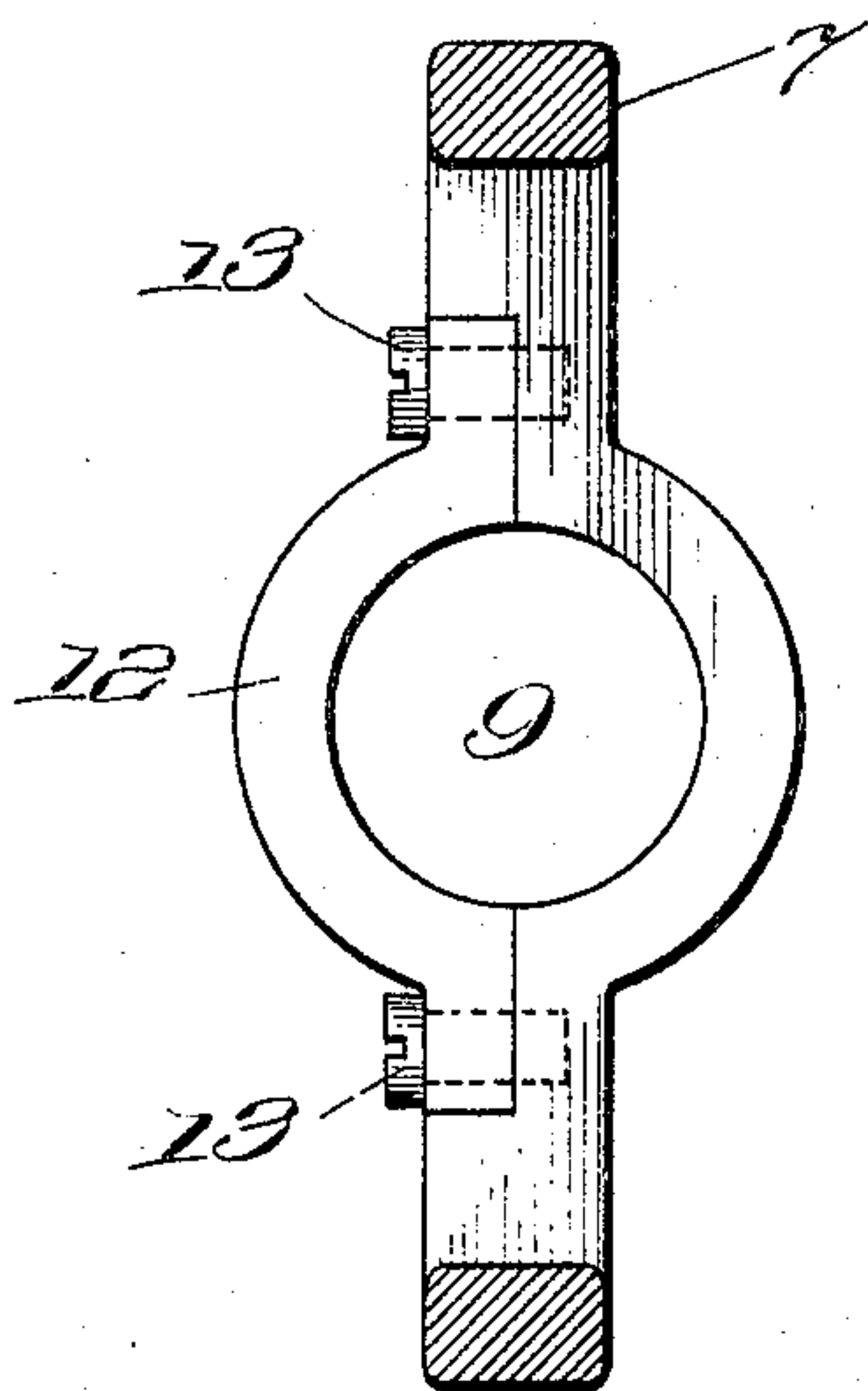


Fig. 3.

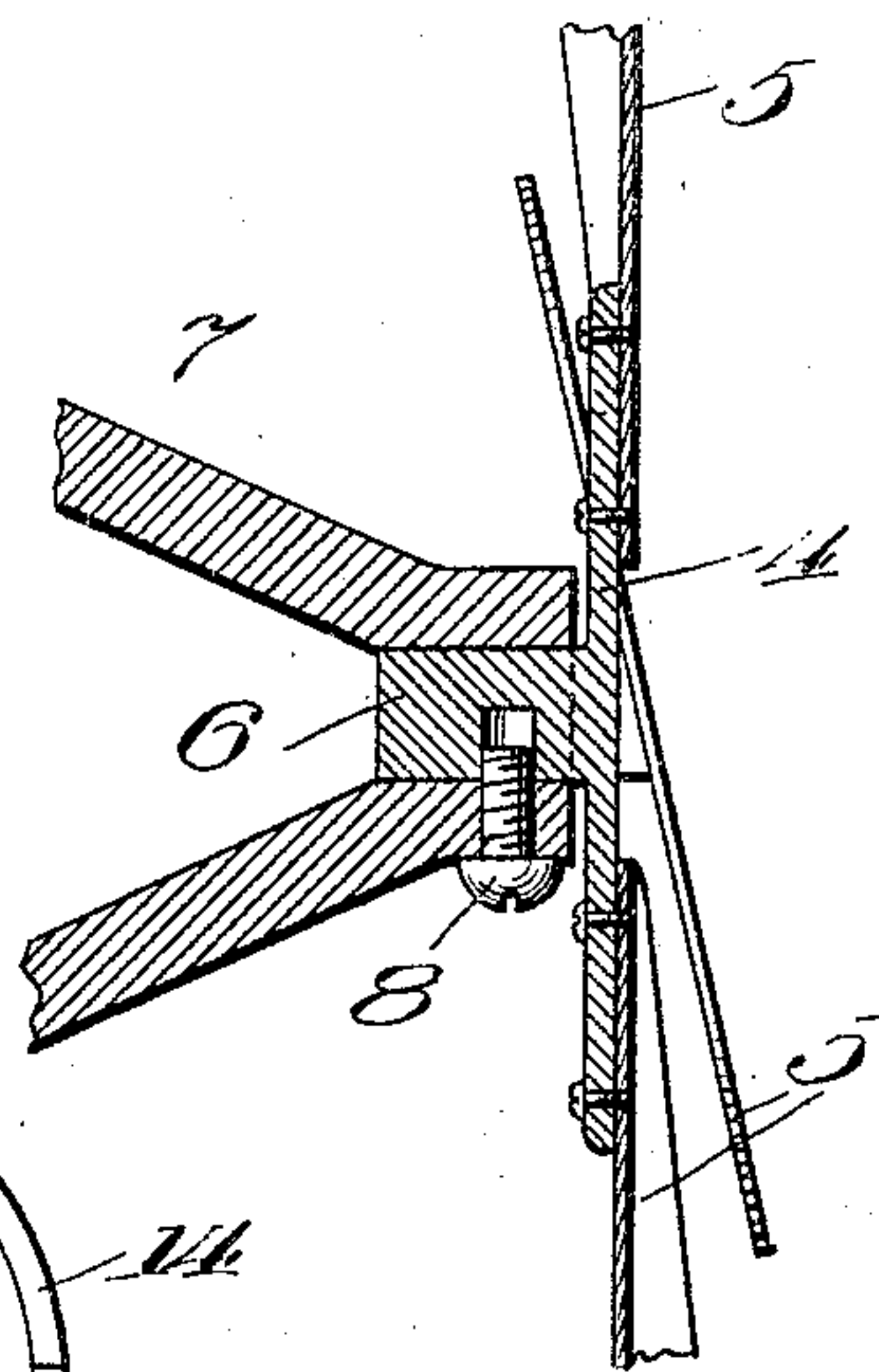
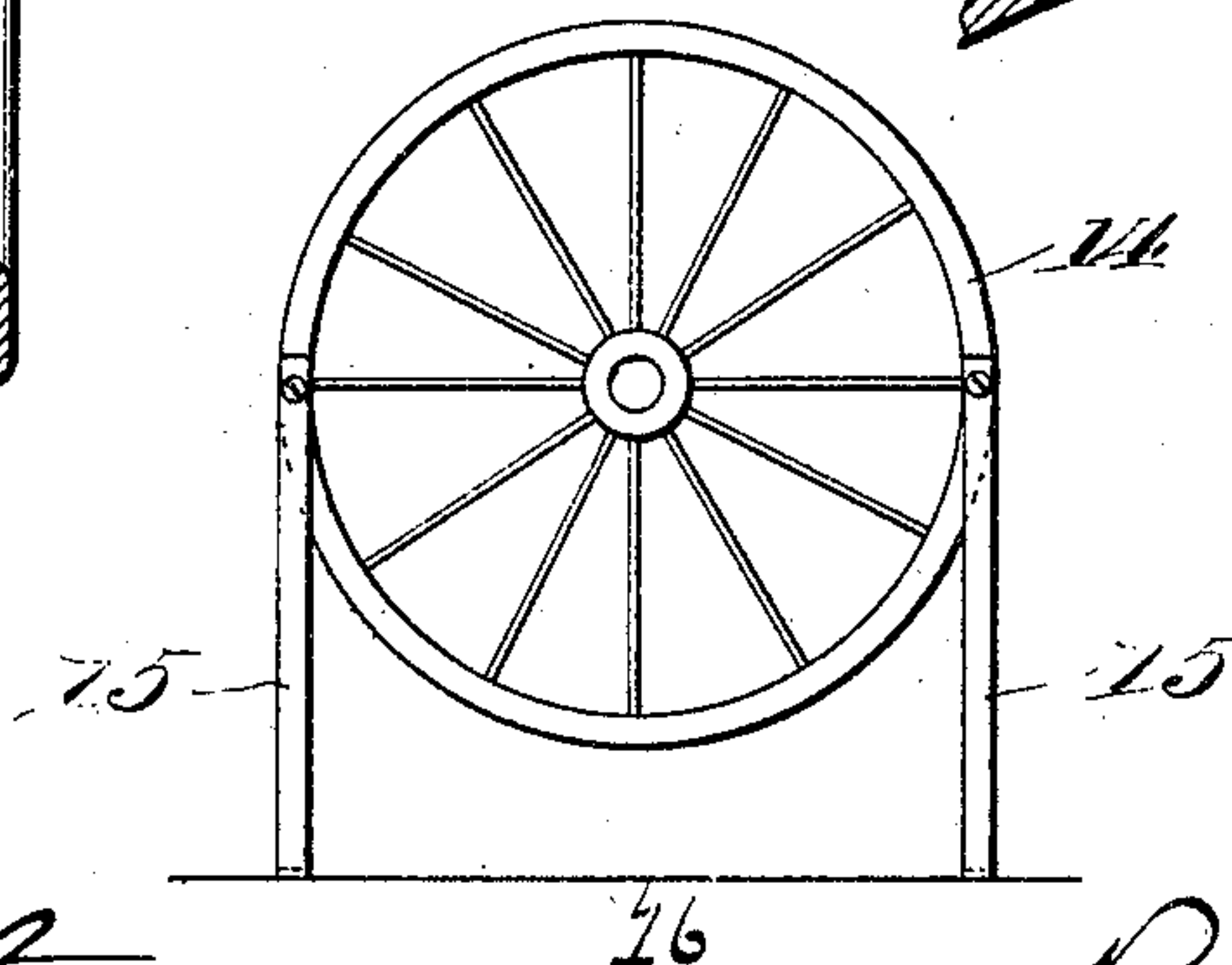


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

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SPECIFICATION forming part of Letters Patent No. 789,955, dated May 16, 1905.

Application filed August 12, 1904. Serial No. 220,535.

To all whom it may concern:

Be it known that I, BARNET BALIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented new and useful Improvements in Fans, of which the following is a specification.

The object of this invention is to provide means for readily connecting a fan to the end of the upper shaft of an ordinary sewing-machine in order to utilize the power of the shaft to operate the fan, and thus create a circulation of air, which is especially desirable and advantageous in sweat-shops and other work-rooms where a number of sewing-machines
15 are operated.

In the accompanying drawings, Figure 1 illustrates my invention applied to a sewing-machine which is shown in a more or less conventional form. Fig. 2 is a sectional view
20 through the clamp. Fig. 3 is a detail sectional view showing the manner in which the clamp is connected to the fan. Fig. 4 is a detail view.

The fan comprises a spider 4, to the arms of which blades 5 of ordinary form are suitably fastened. The spider is provided with a lateral stud 6, which is secured in the end of the clamp 7 by means of a set-screw 8. The other end of the clamp is provided with
30 a circular opening 9 to receive the end 10 of the upper shaft of the sewing-machine 11, and a portion 12 of the circular part of the clamp which contains the opening 9 is made detachable from the major part of the clamp and fastened thereto by screw-bolts 13, so that the clamp can be adjusted to and rigidly secured on shafts which vary more or less in diameter. The fan is inclosed within a cage
35 of suitable construction, which is supported on brackets 15, fastened to a table 16.

In the ordinary sewing-machine of different makes the upper shaft 10 projects beyond the hand-wheel 17, and it is to this projecting end that the clamp is secured, the detachable portion 12 enabling the clamp to be made of a
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standard size adaptable for shafts which vary more or less in diameter. It will be observed that to operate the fan I employ the same power which is used to run the sewing-machine, and the fan can be readily and easily
50 connected with and detached from the shaft, as desired.

The invention is especially suitable for and useful in shops where a great number of sewing-machines are operated, and when these
55 machines are provided with fans in accordance with my invention they will produce a material circulation of the air and add greatly to the comfort of the operators. Many shops of this kind are equipped with steam and
60 other power, besides electricity for running the machines, and consequently it would be impossible to provide them with the ordinary electric fans without incurring considerable expense; but my improved fan can be applied
65 to any machine whether run by an electric motor, steam, gas, or gasolene engine, or by foot-power.

The cost of installing my improved fan is comparatively small, and it adds a very little
70 to the cost of operating the machine.

The construction of the fan is so simple that it can be taken off and applied to the machine easily and quickly and as often as desired.
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Without limiting myself to the exact construction and arrangement of parts herein shown and described, what I claim, and desire to secure by Letters Patent, is—

The combination with the upper shaft of a
80 sewing-machine, of a fan comprising a spider, a stud projecting laterally from the spider, a clamp, means for securing the clamp on the stud of the spider, and means for securing the clamp on the end of said shaft.

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Witnesses:

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