

I. HYDE.
 Combined Water-Wheels and Sewing-Machines.
 No. 131,616. Patented Sep. 24, 1872.

Fig. 1.

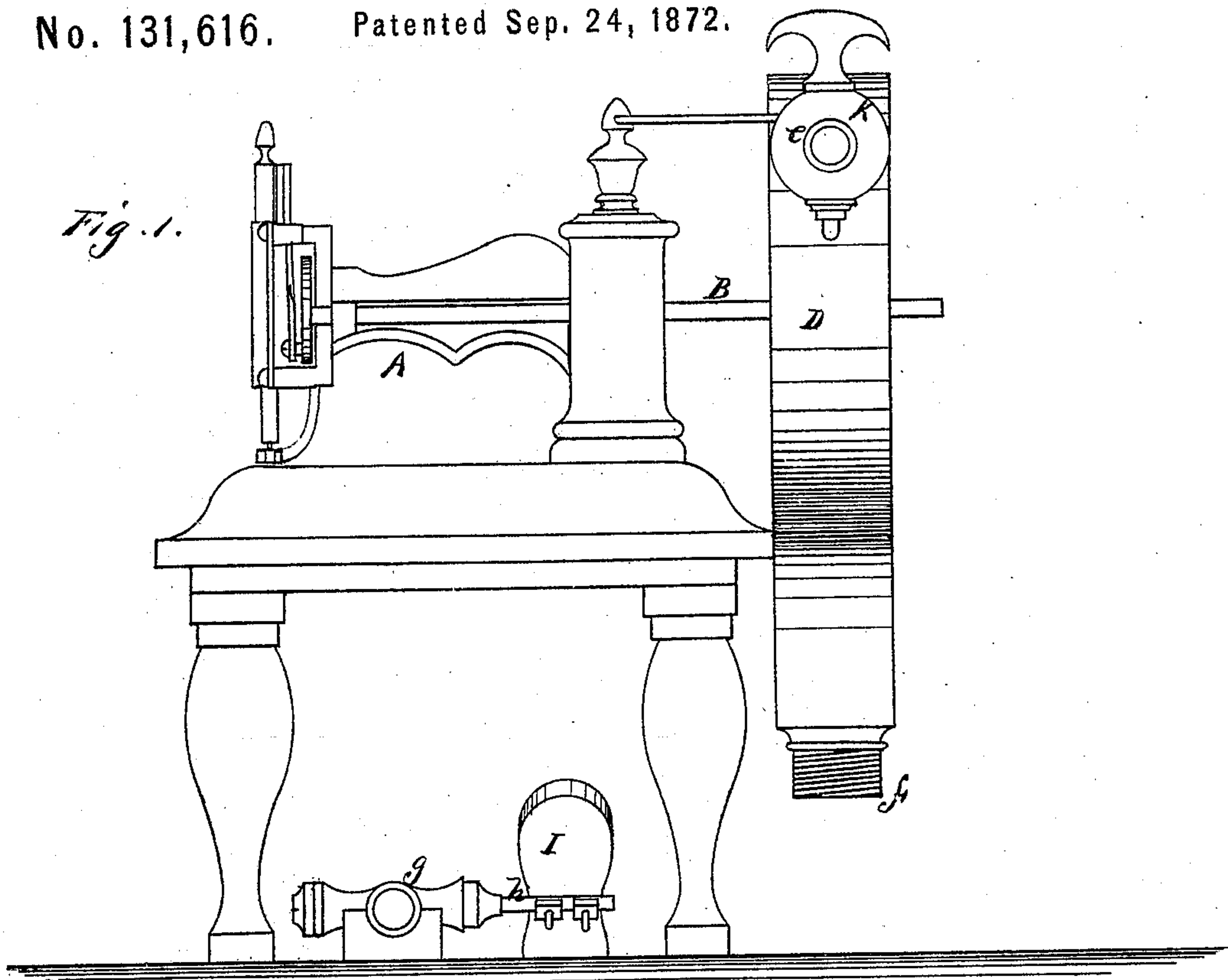
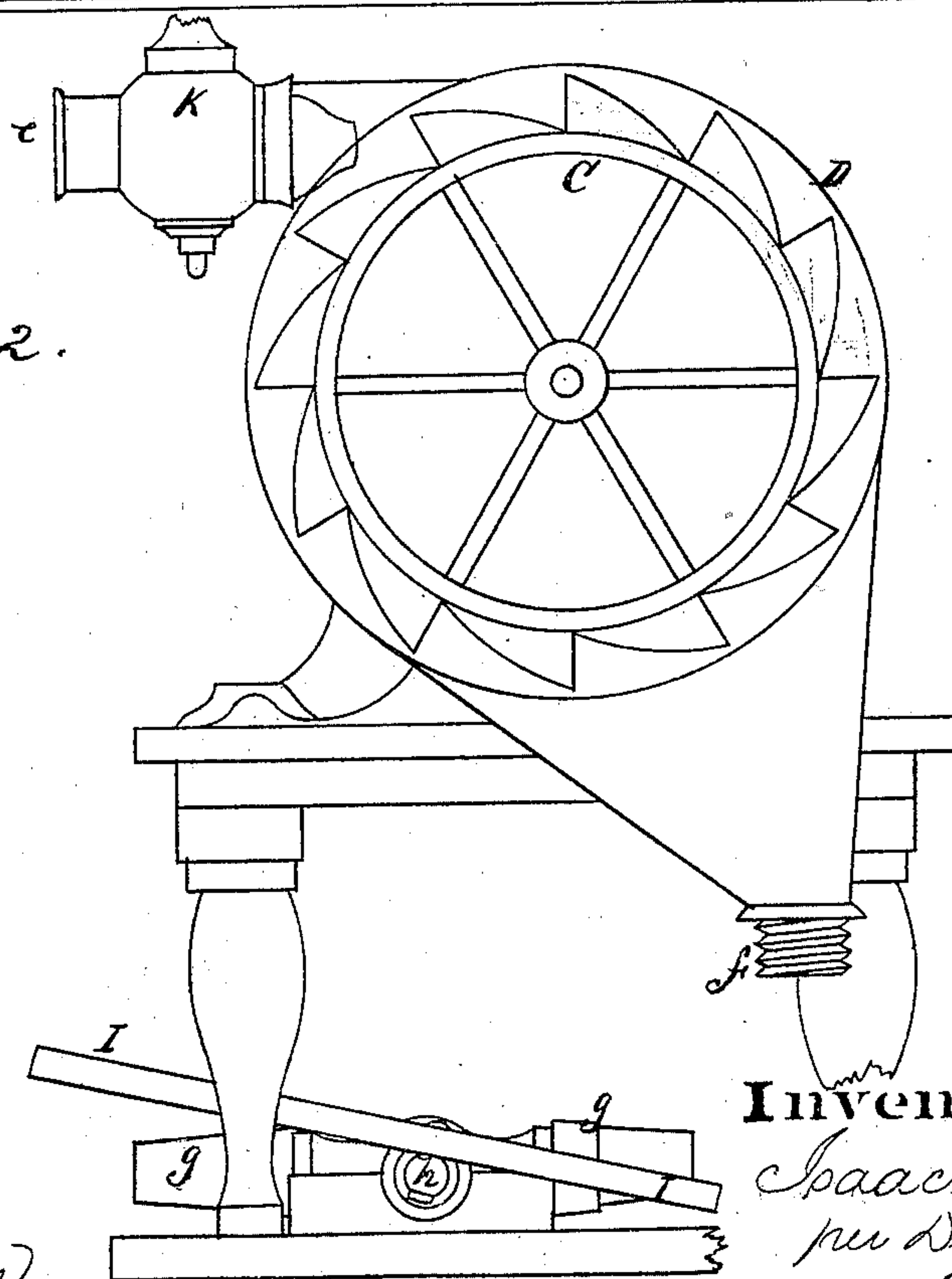


Fig. 2.



Witnesses
J. L. Dorne
C. M. Richardson

Inventor
Isaac Hyde
per Dewey & B.
Attys

UNITED STATES PATENT OFFICE.

ISAAC HYDE, OF OAKLAND, ASSIGNOR TO OSCAR J. BACKUS, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN COMBINED WATER-WHEELS AND SEWING-MACHINES.

Specification forming part of Letters Patent No. 131,616, dated September 24, 1872.

To all whom it may concern:

Be it known that I, ISAAC HYDE, of Oakland, county of Alameda, State of California, have invented a Combined Water-Wheel and Sewing-Machine; and I do hereby declare the following description and accompanying drawing are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

My invention relates to the combination in one and the same machine of a water-wheel and sewing-machine, in such a manner that water from a hydrant, or from some elevated source, can be employed to drive the water-wheel, and through it the driving-shaft of the sewing-machine.

In order to more fully explain my combination, reference is had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a front elevation, and Fig. 2 is an end view.

Let A represent any one of that class of sewing-machines which is ordinarily operated by a treadle or other power which is substituted for foot-power. The driving-shaft B of the machine I extend to one side of the table and secure to its end a small water-wheel, C. Any of the ordinary styles of water-wheels can be used, but I prefer what is known as the hurdy-gurdy wheel. This wheel is inclosed in a case, D, into the upper end of which a pipe, *e*, leads. The lower part of the case is constructed to free the water from the wheel, and a pipe, *f*, leads to a sink or other waste-way. A pipe or tube, not shown, connects with the pipe *e* and leads down below the table, and from thence to the ordinary water-pipes, which are laid in most houses, and from which their supply of water is derived, or, in the absence of this water-supply, the pipe can lead to a tank upon the top of the

house or to some other elevated source. Beneath the table a cock, *g*, is connected with the pipe *e*, from which a horizontal rod, *h*, extends parallel with the floor. A foot-board, I, is secured to this rod, so that the operator can by means of the foot regulate the amount of water which passes to the water-wheel. An ordinary cock, *k*, can also be attached to the pipe near the case D, which serves as a means of regulating the amount of water or of shutting it off entirely from the wheel. Either one or both of these cocks may be used to regulate the supply of water, as desired.

For driving an ordinary sewing-machine the water-wheel can be made very small, so as to occupy but a small space, and a very minute stream of water—say as much as can be admitted through a nozzle or opening one-eighth of an inch in diameter under a head of forty feet—will be sufficient to drive the machine at an ordinary working speed.

By this means I provide a simple, cheap and easily regulated power for sewing-machines which can be obtained and applied wherever the necessary fall of water can be provided.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The water-wheel C in combination with the sewing-machine A and the pipes or hose *e* and *f* with the regulating-cocks or equivalent, substantially as and for the purpose above described.

2. In combination with the water-wheel C and pipe *e*, I claim the cock *g* with its horizontal operating-rod *h* and foot-board I, substantially as and for the purpose above described.

In witness whereof I hereunto set my hand and seal.

ISAAC HYDE. [L. s.]

Witnesses:

JOHN PRICHARD,
THOMAS DOYLE.