No. 726,738. PATENTED APR. 28, 1903.

J. R. NYE.

GEARING.

APPLICATION FILED NOV. 20, 1902.

NO MODEL.

Fig. 1.

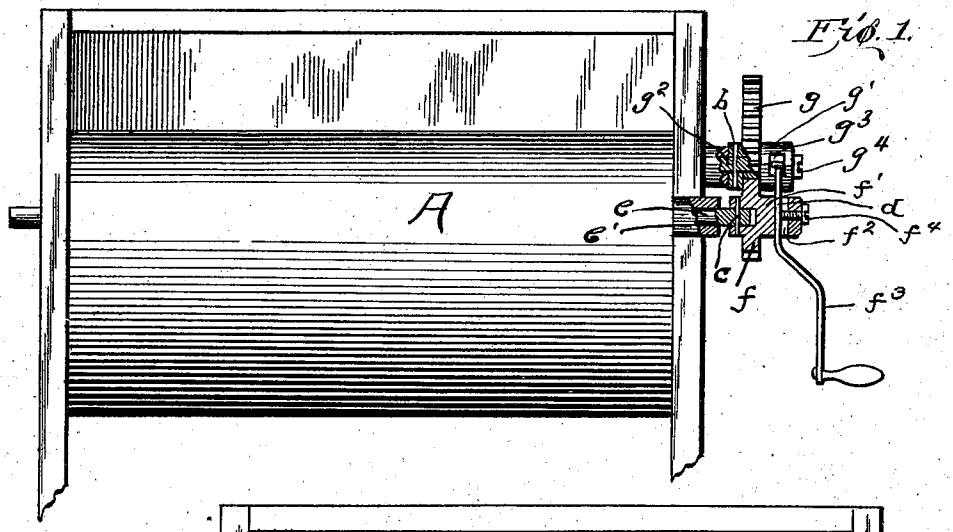


Fig. 2.

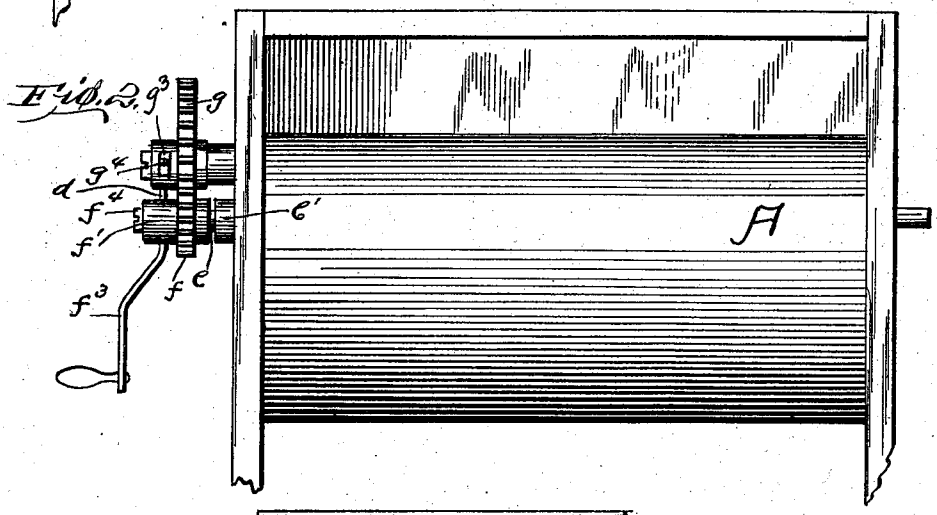
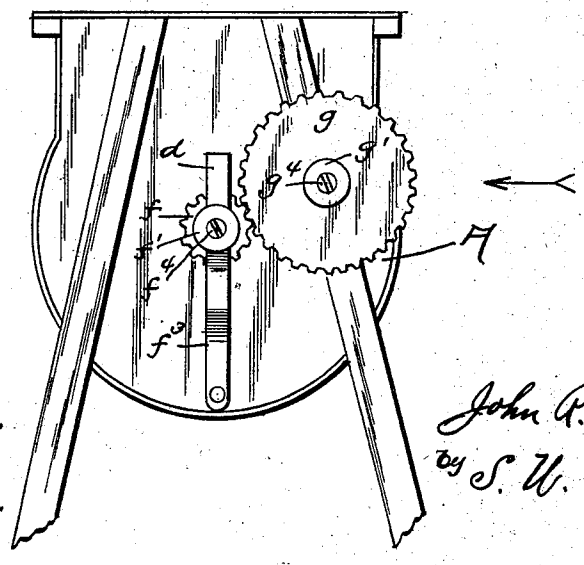


Fig. 3.



Witnesses
R. Wilson
David B. Moore.

Inventor
John R. Nye,
by S. W. Bates,
Attorney

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN R. NYE, OF WATERVILLE, MAINE.

GEARING.

SPECIFICATION forming part of Letters Patent No. 726,738, dated April 28, 1903.

Application filed November 20, 1902. Serial No. 132,173. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. NYE, a citizen of the United States, residing at Waterville, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Gearing, of which the following is a specification.

My invention relates to improvements in gearings, and has special reference to the combination of a large and small intermeshing gearing with novel means by which a handle is detachably secured to either one of said gears at a time, said handle being adapted to revolve the large gear to attain a high speed or be connected to a small gear to attain a low speed. I accomplish these objects by means of the mechanism hereinafter shown, and set forth in the claim.

In the accompanying drawings, Figure 1 is a plan view of a washing-machine with the gearing shown in section. Fig. 2 is a similar view of a washing-machine, showing the gearing in elevation and looking in the direction of the arrow of Fig. 3; and Fig. 3 is an end elevation of a washing-machine, showing the gearing in elevation.

Referring to the drawings, A designates the body, upon the end of which is mounted my improved gearing. This gearing consists, substantially, of a shaft e, journaled in a bearing e'. On the outer end of the shaft e is a small pinion or gear f, secured firmly to the shaft by means of a pin c, said pinion being provided with an outwardly-projecting hub f', provided with a transverse slot or opening f^2 for the reception of the straight end d of the operating-handle f^3, the straight end of said handle being secured within the slot by means of a set-screw f^4, which passes through the extreme end of the hub and engages the straight end of the handle, so as to firmly secure the same within the slot. The straight end d of the handle f^3 is adapted to slide in the slot and be fastened at different positions by the set-screw, whereby the length of leverage is varied when desired. By this connection a low speed is obtained; but should a high speed be desired I provide the following means: A large pinion or gearing g is connected, by means of a pin b, to a short shaft g^2, which is journaled in any suitable bearing, but to one side side of the shaft e. This gearing or pinion g is provided with a hub g', having a similar slot or opening g^3 for the reception of the straight end d of the handle f^3, said straight end being held within the slot by means of a similar set-screw g^4. From this construction it will be seen that when a slow speed is desired the handle is connected directly with the small gear or pinion; but when a high speed is desired the handle is disconnected from the small pinion and connected with the large pinion, which meshes with the small pinion, so as to cause the small pinion when the large pinion is revolved to revolve a greater number of times, thus increasing the speed of the shaft e.

From the foregoing description, taken in connection with the drawings, it is evident that I provide a simple form of gearing, which is especially adaptable for use upon washing-machines, wherein a cylinder is removably and rotatably mounted within a tank, said cylinder being adapted to contain clothes which are washed when using the slow speed and rinsed and wrung by using the high speed.

What I claim as new is—

In a gearing for the purpose set forth, the combination of a rotatable shaft, a small pinion rigidly secured upon one end of said shaft provided with an outwardly-projecting hub having a transverse slot f^2 therethrough, a short shaft g^2 rotatably mounted to one side of the first-mentioned shaft, a large gear g rigidly secured to said shaft g^2 provided with a hub extending beyond and forming a cap over said shaft g^2, said hub being provided with a transverse slot and said gear g having its teeth always meshing with the teeth of the small pinion, a handle f^3 provided with an offset straight end portion which is adapted to enter either slot of the gear or small pinion, and a set-screw entering the extreme end of each hub of the gear and small pinion adapted to engage the outer face of the straight end portion of the handle within the transverse slot of either the gear or pinion so that the handle will be held at its proper adjustment and whereby the handle may be put in direct connection with either one of the gears.

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

JOHN R. NYE.

Witnesses:

T. BLAIR SHOEMAKER,

DAVID P. MOORE.