J. A. ARNSDORFF.

DISPLAY DEVICE.

APPLICATION FILED JAN. 15, 1910.

951,718. Patented Mar. 8, 1910.

Fig. 1.

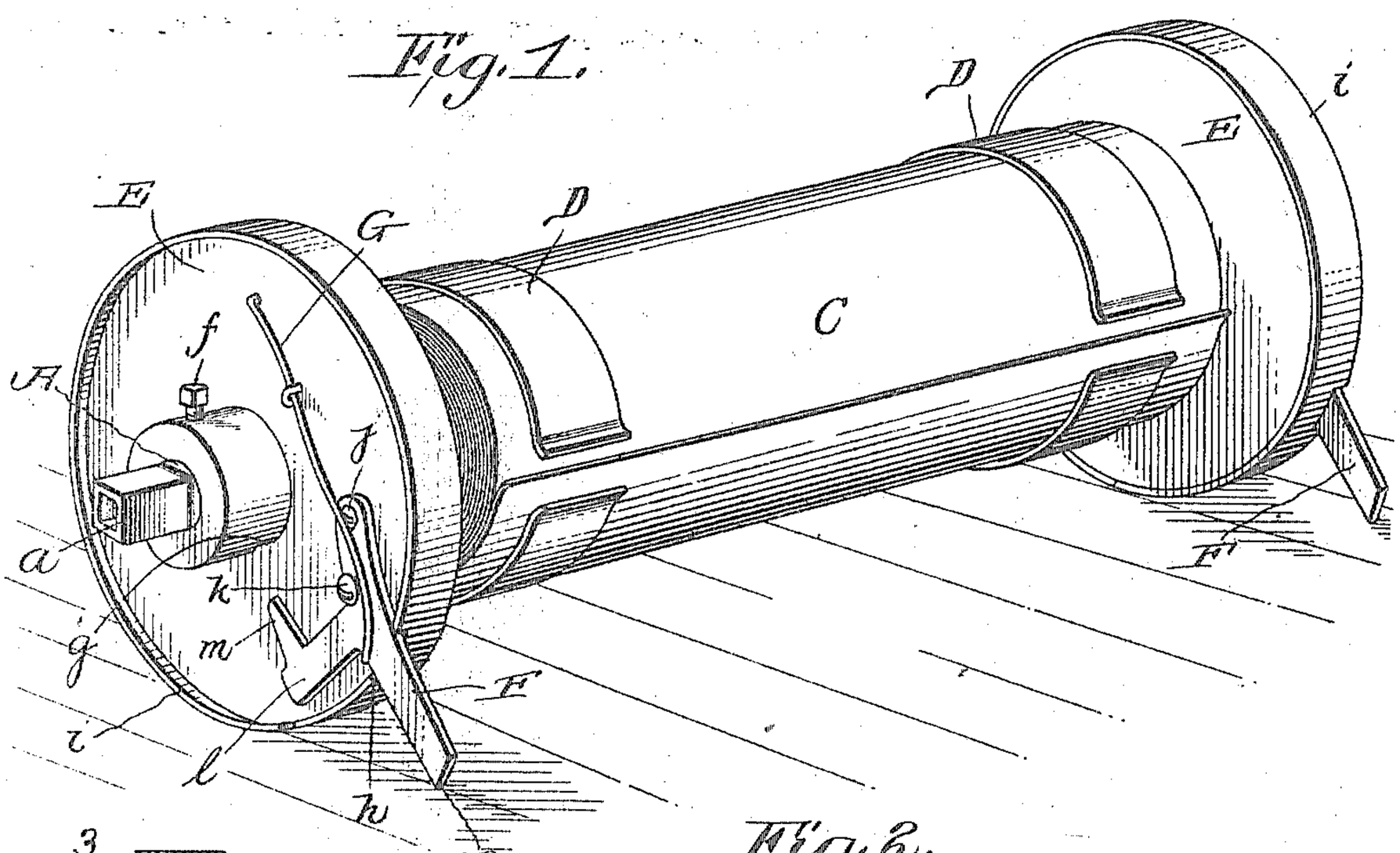


Fig. 2.

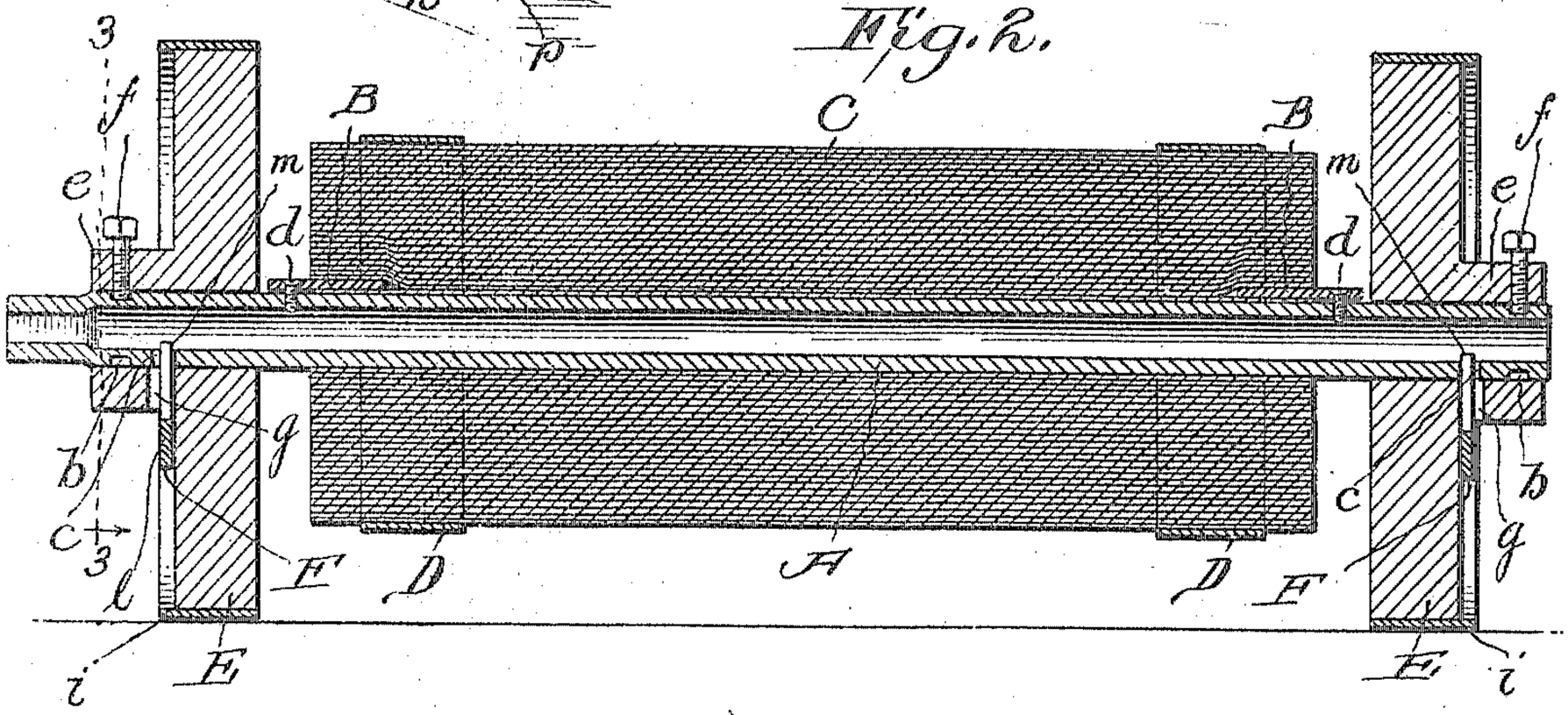


Fig. 3.

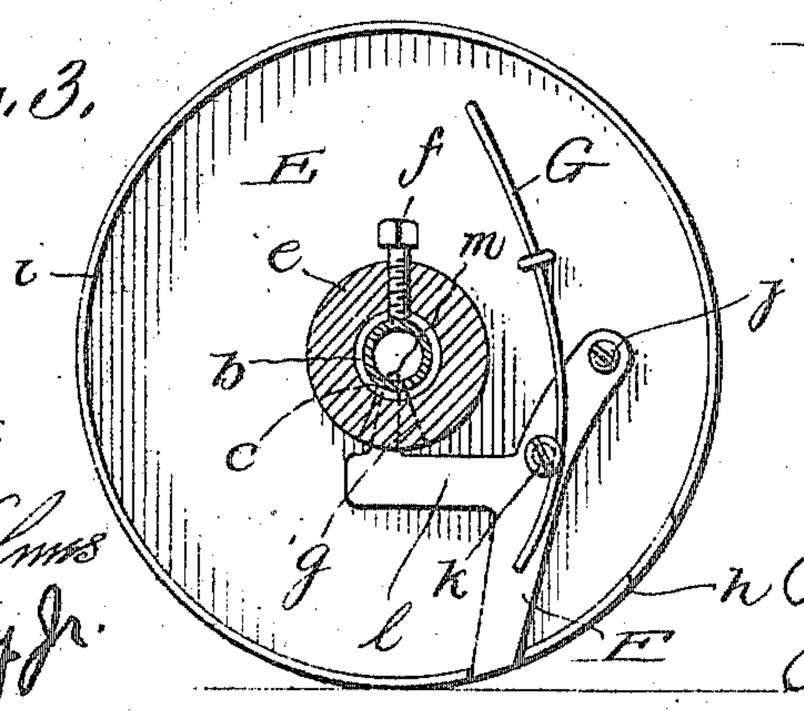
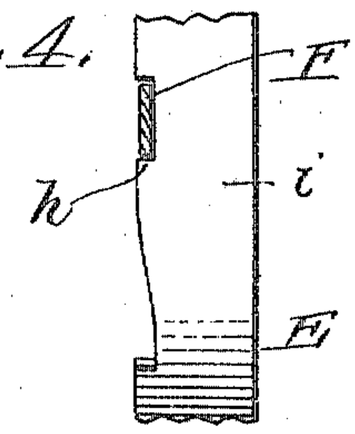


Fig. 4.



WITNESSES

Oliver W. Holmes

J. J. Sheehy Jr.

INVENTOR

J. A. Arnsdorff.

James J. Sheehy Attorney

UNITED STATES PATENT OFFICE.

JULIUS A. ARNSDORFF, OF KNOX, INDIANA.

DISPLAY DEVICE.

951,718. Specification of Letters Patent. **Patented Mar. 8, 1910.**

Application filed January 15, 1910. Serial No. 538,275.

To all whom it may concern:

Be it known that I, JULIUS A. ARNSDORFF, citizen of the United States, residing at Knox, in the county of Stark and State of Indiana, have invented new and useful Improvements in Display Devices, of which the following is a specification.

My invention has to do with the handling and display of linoleums, oil cloths and the like; and it has for its object to provide a device of roller character embodying such a construction that a piece of material may be expeditiously and easily rolled on or off of the device, and when desired the device with the material that is rolled thereon may be conveniently rolled over a floor or other surface without liability of the material being fed off of the device or disarranged in any manner.

The invention will be best understood by reference to the following description when taken in connection with the accompanying illustration of one specific embodiment thereof, while its scope will be more particularly pointed out in the appended claims.

In the drawings which are hereby made a part hereof: Figure 1 is a perspective view showing my novel device as bearing a roll of material and as arranged to prevent rotation of its traveling wheels, so that the piece of material may be drawn from the device without movement of the same from the position in which it is placed. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a transverse section taken in the plane indicated by the line 3—3 of Fig. 2 and showing one of the detents in the position in which it is placed to fix its respective wheel to the central shaft so as to adapt the wheel to freely turn over a floor or other surface and with the shaft, and: Fig. 4 is a detail section taken at a right angle to Fig. 3 and illustrating the manner in which each detent is locked to its respective wheel when it is in the position shown in Fig. 1, relative to said wheel.

Similar letters designate corresponding parts in all of the views of the drawings, referring to which:

A is the shaft of the device which is preferably, though not necessarily, tubular. One end *a* of the said shaft is of angular form in cross-section for the application of a crank (not shown) which may be used in turning the shaft in the wheels, presently described, for the purpose of winding linoleum, oil cloth or other material on the shaft while the wheels are held against turning on the supporting surface in the manner shown in Fig. 1. Near its ends the shaft A is provided with circumferential grooves *b*, and is also provided, at about the distance illustrated from said grooves, with radially disposed apertures *c*. It will further be understood by reference to Fig. 2 that the shaft A is equipped with plates B, connected to it by screws *d*. The said plates B are used to clamp the inner end of the piece of material to be handled and displayed to the shaft so that when the shaft is turned in the wheels and independent of the same as before mentioned, the piece of material will be held to the shaft and will not be liable to pull away from the same.

For the purpose of holding the roll of material C in compact state on the shaft and against casual uncoiling or loosening, I provide the spring clips D, one of which is placed on the roll adjacent each end thereof.

E E are the wheel of the device, which may be of any construction and material compatible with the purpose of my invention. Each wheel is provided with a flange *e*, and in said flange bears a screw *f* which extends into one circumferential groove *b* of the shaft and holds the wheel against movement in the direction of the length of the shaft without interfering with rotation of the shaft in the wheel—*i. e.*, independent of the same. Each wheel is also provided in its flange *e* with a radially disposed aperture *g* adapted to register with one aperture *c* of the shaft, and each wheel is further provided with a segmental rack, Figs. 1, 3 and 4, which rack is provided at *h* with a tooth of the form best shown in Fig. 4. I prefer to form the said segmental rack in the outwardly extended portion of the rim *i* of each wheel as shown.

F F are the detents of the device, and G G are the springs for coöperating with said detents. There is one detent F and one spring G on each wheel, and inasmuch as both detents are identical in construction and both springs are similar, a detailed description of the detent and spring shown at the left of Fig. 1 and in Fig. 3, will suffice to impart a definite understanding of both detents and both springs. The detent mentioned is pivoted at *j* to its respective wheel at the outer side thereof and extends out-

ward alongside the rack having the tooth *h*. At *k* the detent is provided with a lateral projection, and at *l* it is provided with a lateral arm having a toe *m*, designed to seat or socket in the registered apertures *g* and *c* in the wheel and shaft respectively, as shown in Figs. 2 and 3. The spring G is connected to the outer side of the wheel and rests over the lateral projection *k* of the detent.

By virtue of the construction described, it will be seen that when the detents F are placed in the positions shown in Fig. 1, the wheels will be held against turning on the floor or other surface, and the shaft A will be left free to turn in the wheels. In such positions of the detents F their sharp points *p* will engage the floor to better enable the detents to serve the purpose ascribed. Then when the clips D are removed from the roll of material and the presented end of the material is grasped, any desired length of the material may be drawn from the roll. It will also be here understood that while the wheels are secured against turning in the manner described, a crank may be applied to the angular end *a* of the shaft, and said shaft turned to rewind the mentioned length of material on the roll.

When it is desired to roll the device with the material thereon, the clips D are placed on the roll of material as shown in Fig. 1, and the detents are pressed laterally outward to disengage them from the teeth *h*, whereupon the springs G will press or move the detents from the positions shown in Fig. 1 to the positions shown in Figs. 2 and 3. In the latter positions the detents will obviously lock the wheels to the shaft and at the same time will not interfere with the travel of the wheels over the floor or other surface.

While I have shown and described one form of my invention, it is to be understood that I am not limited to the details or the form or relative arrangement of parts disclosed, but that extensive modifications may be made therein without departing from the spirit thereof.

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

1. A device for the purpose described, comprising a shaft having an end portion, of angular form in cross-section, and also having circumferential grooves near its ends and apertures adjacent said grooves, clamping plates spaced apart and connected by screws to the shaft, wheels loosely mounted on the shaft and having beveled teeth and also having apertures arranged to register with those of the shaft and further having projections disposed and movable in the circumferential grooves of the shaft, spring-pressed detents pivoted to the wheels and having means for engaging the teeth thereof, in one position of the detents, and also having means for entering the registered apertures of wheels and shaft, in the other position of the detents, and a clip for embracing and holding a roll of material on the shaft.

2. A device for the purpose described, comprising a shaft, wheels movable about the shaft and held against movement lengthwise thereof and having teeth, and spring-pressed detents movable on the wheels and having means for engaging the teeth thereof and extending beyond the peripheries of the wheels, in one position of the detents, and also having means for fixing the shaft to the wheels, in the other position of the detents.

3. A device for the purpose described, comprising a shaft having circumferential grooves near its ends and apertures adjacent said grooves, wheels loosely mounted on the shaft and having beveled teeth and also having apertures arranged to register with those of the shaft and further having projections disposed and movable in the circumferential grooves of the shaft, and spring-pressed detents pivoted to the wheels and having means for engaging the teeth thereof and extending beyond the peripheries of the wheels, in one position of the detents, and also having means for entering the registered apertures of wheels and shaft, in the other position of the detents.

4. A device for the purpose described, comprising a shaft having an end portion, of angular form in cross-section, and also having circumferential grooves near its ends and apertures adjacent said grooves, wheels loosely mounted on the shaft and having apertures arranged to register with those of the shaft and projections disposed and movable in the circumferential grooves of the shaft and also having rims provided at their outer edges with segmental racks the teeth of which are beveled, and spring-pressed detents pivoted to the outer sides of the wheels and adapted in one position to engage the teeth of the racks and extend beyond the rim of the wheels and having means, in the other position of the detents, for entering the registered apertures of the wheels and shaft and fixing the shaft to the wheels.

5. A device for the purpose described, comprising a shaft, means movable about the shaft and held against movement lengthwise thereof and adapted to travel over a floor or other surface, and detents carried by the wheels for extending beyond the peripheries of the wheels and engaging the floor, in one position of the detents, and for fastening the wheels to the shaft and lying within the perimeters of the wheels, in the other position of the detents.

6. In a device of the character described,

the combination of a shaft, wheels loose thereon, and adjustable means for engaging the surface on which the wheels are placed, in one position, and for fixing the wheels to the shaft and leaving the wheels free to turn on the surface, in another position.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JULIUS A. ARNSDORFF.

Witnesses:
JOHN G. KRATTI,
CHARLES H. PETERS.