D. S. ALLING.

Stop for Sewing-Machines.

No. 135,461. Patented Feb. 4, 1873.

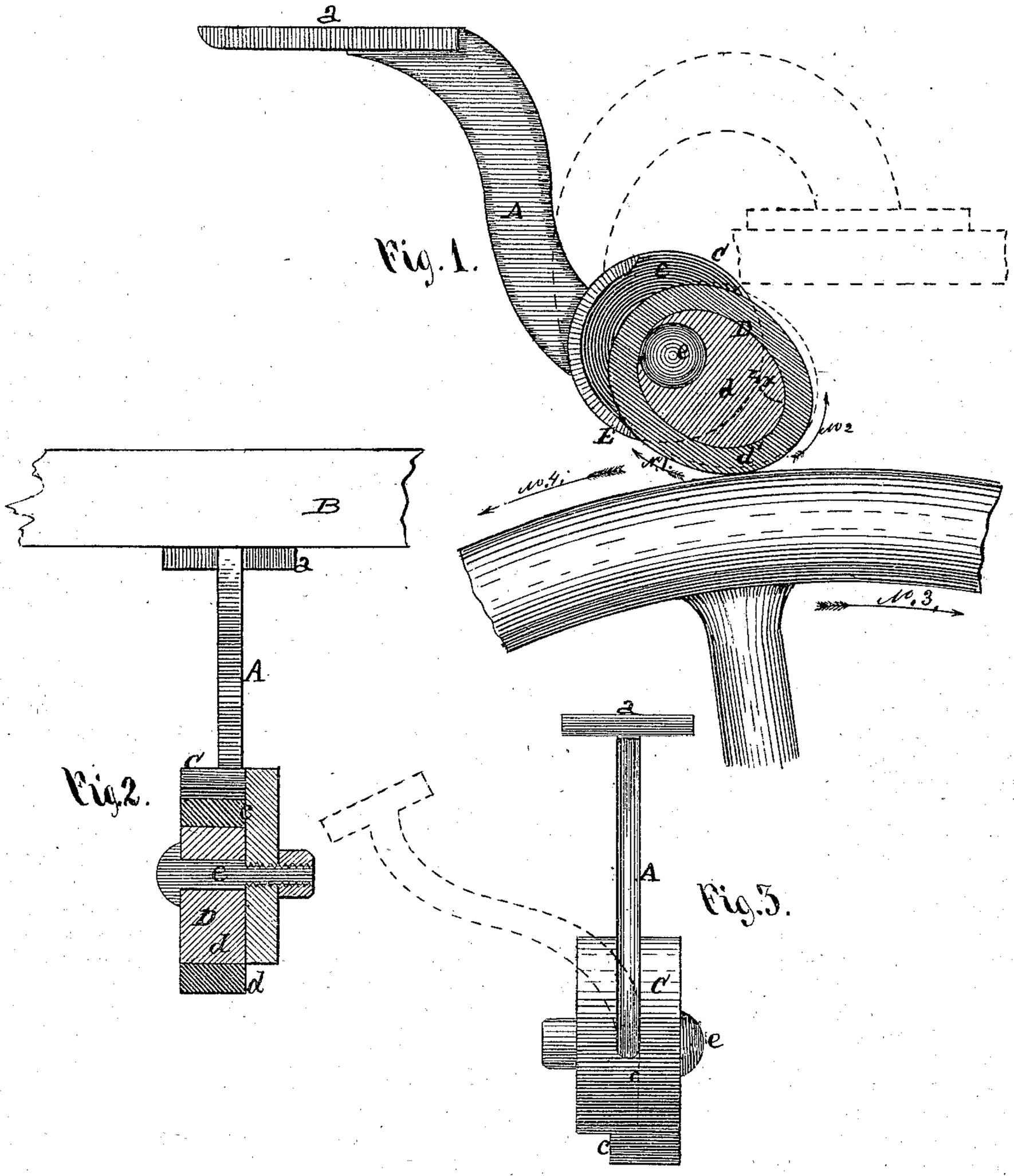

Fig. 1.

Fig. 2.

Fig. 3.

Witnesses. { Chas. J. Seekirk, Geo. E. Thompson,

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Inventor.

UNITED STATES PATENT OFFICE.

DAVID S. ALLING, OF ALBANY, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO PETER C. LANDER, OF SAME PLACE.

IMPROVEMENT IN STOPS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **135,461**, dated February 4, 1873.

To all whom it may concern:

Be it known that I, DAVID S. ALLING, of the city and county of Albany, State of New York, have invented a new and Improved Device for Confining the Direction of the Movement of Revolving Wheels; and I do hereby declare that the following is a description thereof, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 represents a side view of the invention, and illustrates its application to a wheel. Fig. 2 is a cross-sectional view. Fig. 3 is a view from the rear.

Like letters of reference indicate like parts.

My invention relates to a device for confining and permitting wheels to one direction of revolution, such as the driving or fly wheels of foot-lathes, foot-saws, sewing-machines, or other machines operated by a treadle; and consists in the combination of a pivoted elastic cam or eccentric, or its equivalent, and a stop with a bracket or arm, in such a manner that the said elastic cam, or equivalent, will be capable of swinging in one direction to a distance sufficient to carry the throw of the same out of contact with the rim of the wheel with which it is to act, and of swinging in an opposite direction sufficient to cast the throw of the said cam a little below the line of the said rim, were permission given for the same; the object of this invention being to permit a wheel to revolve in one desired direction without obstruction, and to prevent, in an instantaneous manner, the movement of the wheel in the reverse direction.

To enable others skilled in the art to make and use my invention, I will proceed to describe it in reference to the drawing and the letters of reference marked thereon.

In the drawing, A represents any suitable form of arm, provided with the heel *a*, by which the said arm may be securely attached to some part of the frame-work, or equivalent fixed piece, B, Fig. 2. C is the head of the arm, with which the cam is to be pivoted. The said head may be of any desired form, and may have its face *c* in any relative position with the arm A or its heel *a* which the nature or circumstances of the machine to which it is to be applied might demand, as shown by dotted and full lines in Figs. 1 and 3. D is a cam, eccentric, or equivalent piece, pivoted in a proper manner to the head-piece C, either by the loose pivot *e* made to pass through both the said cam and head, as in Fig. 2, or by a pivot made solid with the body of the cam, and passing through and turning in the head-piece, and secured outside the same, or by a pivot made solid with the head-piece and passing through the cam, either of which modes of pivoting the said two pieces would effect the same result. The said cam or equivalent piece consists of the solid metal portion *d* and the elastic or slightly-yielding portion *d'*, Figs. 1 and 2, which elastic or yielding part may be of rubber, leather, cloth, or equivalent material which would act on the surface of the rim of a wheel without slipping. Attached to or made solid with the head-piece C is the stop E, intended to check the movement of the cam D or its equivalent in the direction indicated by arrow No. 1, which would be in opposition to the direction of the revolving of the wheel W, as indicated by arrow No. 3 in Fig. 1. A stop, *x*, attached to or made solid with the cam, acting against a portion of the head—say at *z*, indicated by dotted lines in Fig. 1—might be used as an equivalent to the said stop E to limit the movement of the cam in the direction of arrow No. 1.

The device may be applied to operate on the face of a driving or fly wheel, or on the edge or side of the same; or, if the rim be round or oval, it may be applied to act at any desired angle on the same, and when properly placed and secured the wheel W is free to revolve in the direction of arrow No. 3, the cam D being readily thrown up in the direction indicated by arrow No. 2, and offering little or no weight for effecting a resistance to the movement of the wheel; but when the direction of the movement of the said wheel is reversed, as indicated by arrow 4, the cam, by gravity, will come in contact with the rim of the wheel, and its throw will crowd hard against the same to wedge it fast between its pivot *e* and the rim of the wheel, the stop E in the while limiting the throw back of the cam and its wedging with the wheel.

This device is intended to be used with the driving or fly wheels of machines driven by

foot-power through the medium of a treadle, and is well adapted to foot-lathes, drills, sewing-machines, and the like, where it is desirable to have the driving-wheel to start in the one and same direction.

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

The combination of the cam D, or its equivalent, constructed and pivoted as described, with the arm A and stop E, or equivalent, as described, substantially as set forth, for the purpose specified.

DAVID S. ALLING.

Witnesses:
CHAS. J. SELKIRK,
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