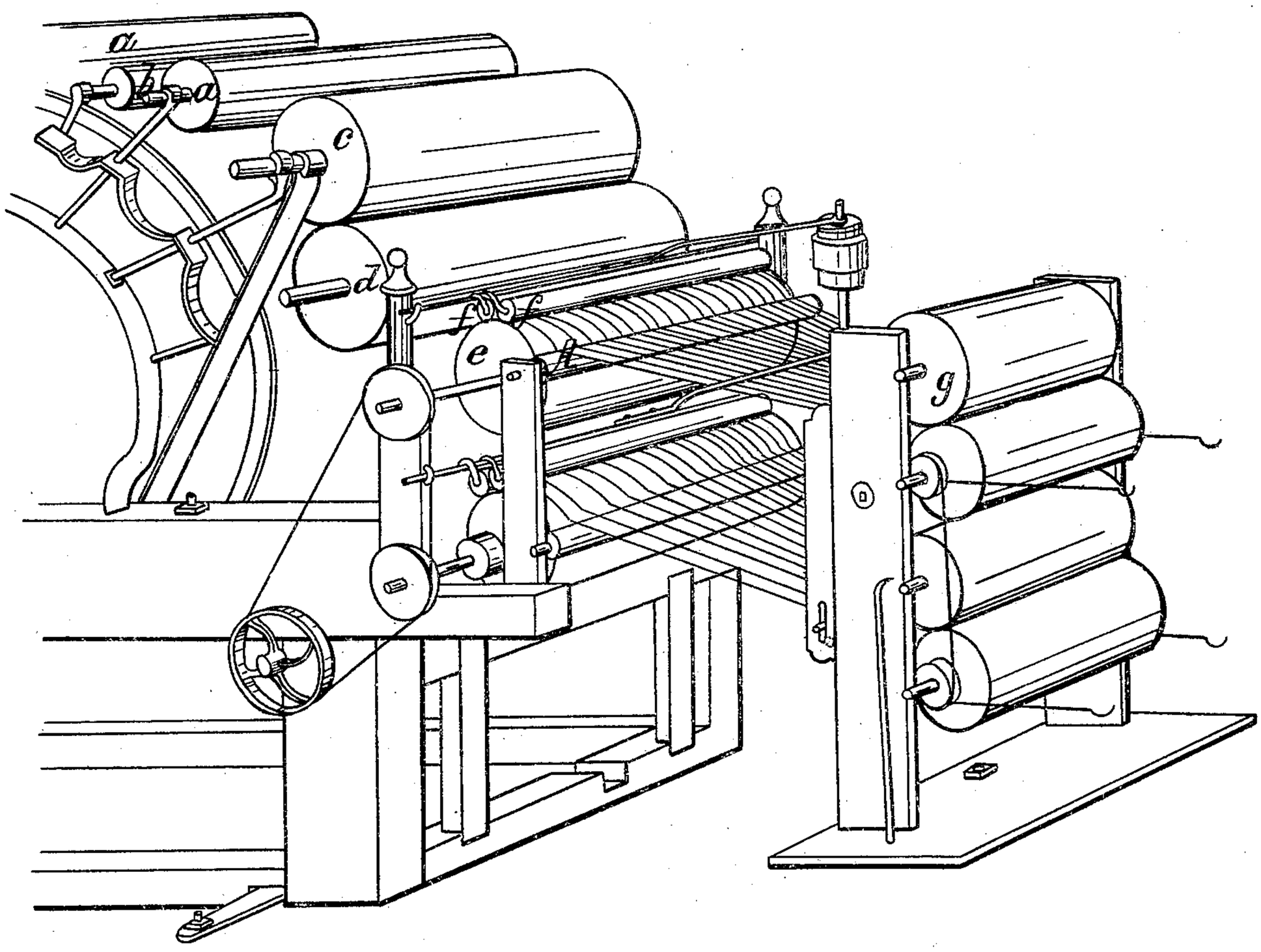
J. S. Hogeland.

Carding Mach.

No. 9,540. Patented Jan. 18, 1853.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES S. HOGELAND, OF LA FAYETTE, INDIANA.

WOOL-CONDENSER.

Specification of Letters Patent No. 9,546, dated January 18, 1853.

To all whom it may concern:

Be it known that I, JAMES S. HOGELAND, of La Fayette, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvemnts in Wool-Condensers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification and which exhibits a view in perspective of a portion of an ordinary condenser with my improvement attached thereto.

In wool condensers of the reciprocating variety such as are shown in the accompanying drawing, the slubbing or roping, as it comes from the card, is compressed tightly upon the surface of the rub-roller by the reciprocating rollers above, so that it often happens that the roping adheres to the rub roller with sufficient force to be drawn around by it until broken away from the spool, which not only renders it necessary to stop the machine to mend the break but also causes a frequent waste of the adjoining slubbings, by the entanglement of them with the broken one. The object of my invention is to remedy these defects, and it consists in the employment of what I denominate "relief and guide rollers," which are so situated and rotated on the delivery side of the ordinary "rub rollers," as to relieve the slubbing from its tendency to adhere to the latter and to be carried out of the direct line to the spools.

In the drawing, *a a* are the "workers" and *b* the "stripper" of the ordinary condenser; *c* is the usual "fancy roller" and *d* the upper "doffer" for taking off the slubbing therefrom.

e is the "rub-roller" on which the wool in passing over is condensed by the reciprocating movement and rotary action of the "vibratory rollers" *f* in the usual manner.

g is the "spool" for receiving the roping as it is discharged from the "rub roller."

Such description, so far, refers to the ordinary mechanism in use for condensing wool, and it will be unnecessary to describe the further action of these parts.

Two or more "rub rollers," as represented in the drawing, with their accompanying parts are fitted to the same frame, if desired, for duplicate or separate "condensing," but as each rub roller has my improvement applied to it I shall only describe it as connected with one. With coarse or burry wool, the direct transmission of the slubbing, or roping, from the "rub-roller" to the spools, is often impeded by the unequal adherence of the wool to the "rub-roller" which, in rotating, is apt to carry the coarser or more burry and consequently more adhering roping around with it, or partly so, thereby drawing the same out of its direct course; the reducing or drawing tendency produced by the retention of the roping on the rub-roller is consequently felt at the worst points, and in thus unequally deflecting the roping in its course to the spool it is unequally drawn and therefore wound upon the spool irregularly; and when great inequality in the draw occurs, the folds of the roping are in danger of becoming entangled on the spool. Also the sticking of the wool to the rub-roller frequently produces further difficulty by causing the roping to wind around the rub roller instead of the spool and thus chokes the machine. To obviate these evils I have furnished the condenser with a small relief roller A which is revolved in the same direction as the rub-roller and nearly in contact therewith on its delivery side. Thus it will be seen the tendency of the roping to adhere to the rub-roller will be counteracted by the action of the relief roller to which it has but little, if any, tendency to stick, as it is not compressed thereon as it is upon the surface of the rub-roller by the pressure of the rubbers, so that the roping or slubbing will be continued in a direct line, or nearly so, from the upper portion of the periphery of the relief roller to the spool. This "relief roller" may be driven by the same belt or band that communicates motion from the rub-roller to the spool drum, or it may be driven, in the same direction as the rub-roller, by any suitable means. Each rub-roller of the condenser is furnished with a relief and guide roller.

Having thus described my improved wool-condenser, what I claim as new therein and desire to secure by Letters Patent is—

The method herein described of detaching the ropings from the rub roller and guiding them on their passage to the spool in such manner as to prevent them from being unequally deflected and thereby unequally stretched, by means of a relief and guide-roller arranged and operating substantially as herein set forth.

In testimony whereof I have hereunto subscribed my name.

JAS. S. HOGELAND.

Witnesses:
P. H. WATSON,
I. S. SMITH.