

G. S. ROGERS.

Paper Drier.

No. 46,026.

Patented Jan'y 24, 1865.

Fig. 3

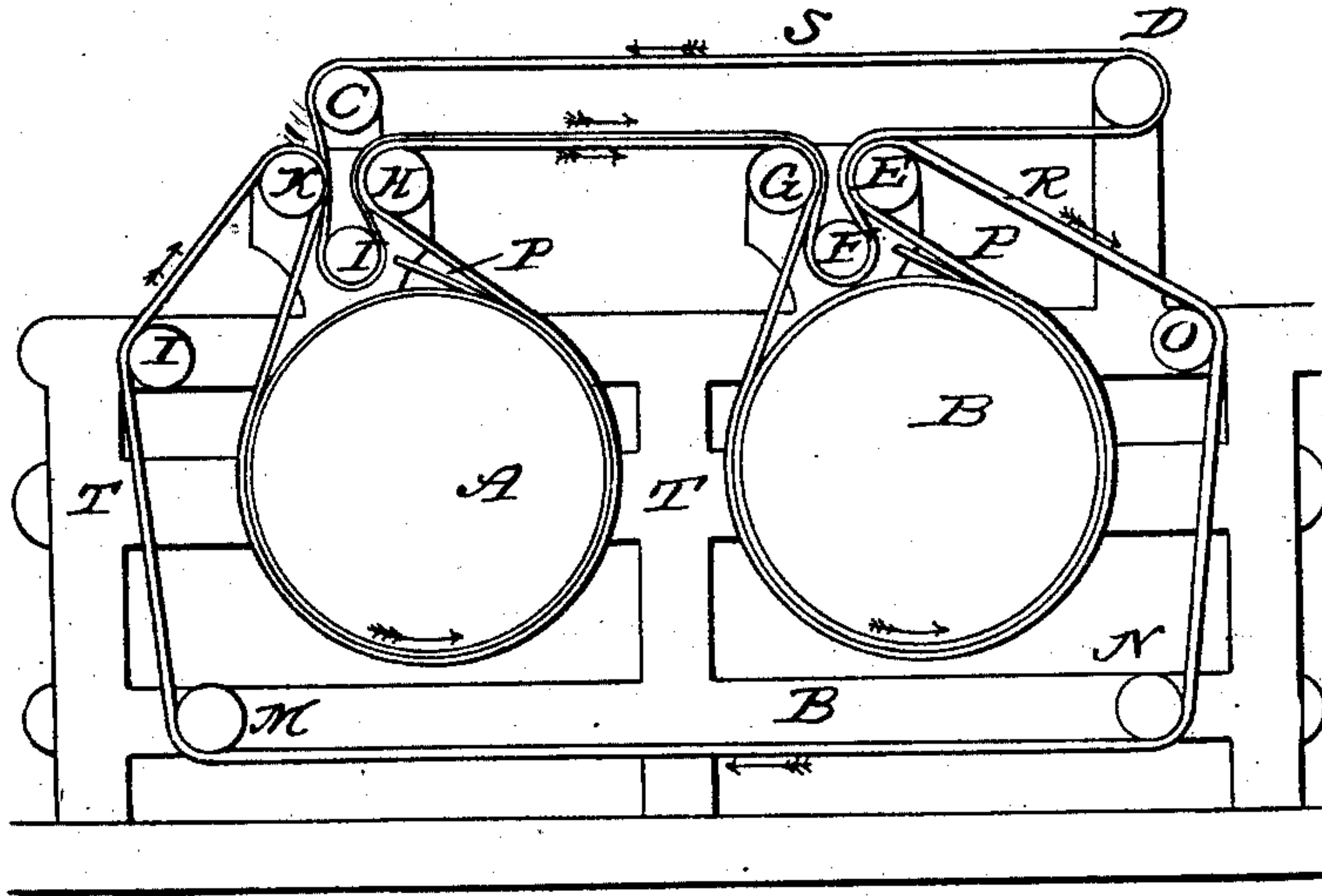


Fig. 2

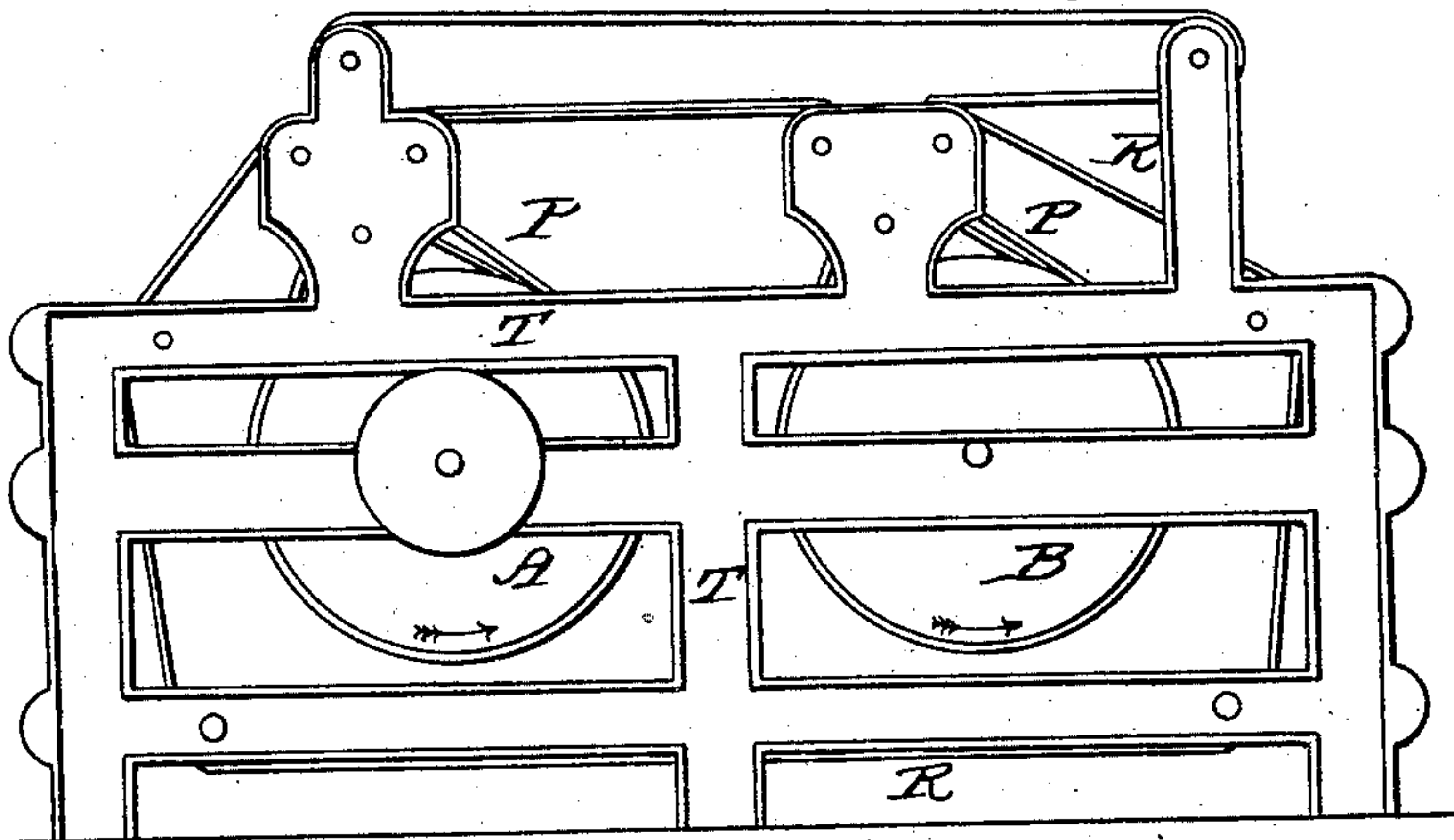
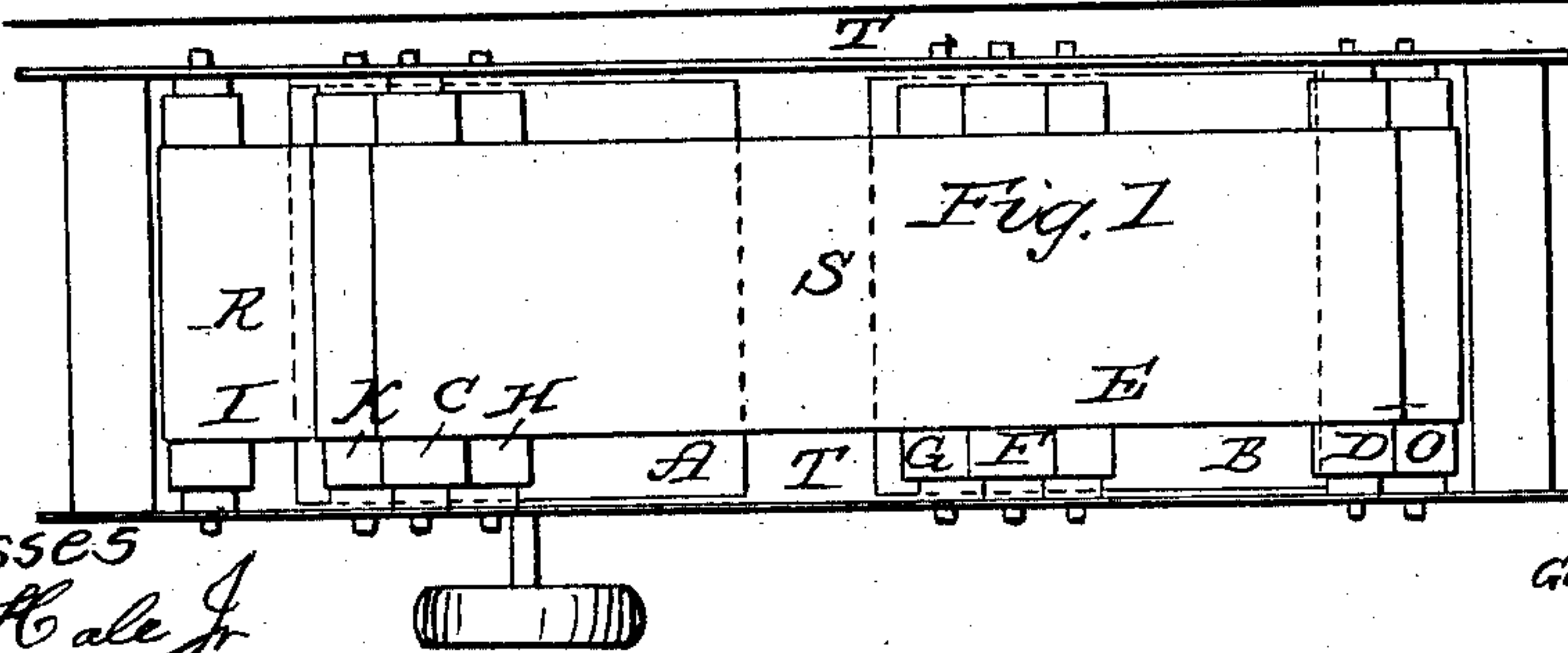


Fig. 1



Witnesses
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UNITED STATES PATENT OFFICE,

GEORGE S. ROGERS, OF THETFORD CENTRE, VERMONT.

IMPROVEMENT IN MACHINES FOR DRYING PAPER.

Specification forming part of Letters Patent No. 46,026, dated January 24, 1865.

To all whom it may concern:

Be it known that I, GEORGE S. ROGERS, of Thetford Centre, in the county of Orange and State of Vermont, have invented an Improved Machine for Drying Sheets of Paper or Pasteboard; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of it.

The main operative parts of the said machine are inclosed within and supported by a suitable frame, T, and may be thus described:

A and B are two hollow drying-cylinders, which are to be heated either by steam, hot air, or other suitable means, such steam or air being introduced within the interior of such cylinder. These cylinders, as well as the several rollers for supporting and guiding two endless aprons, R S, are to be capable of being freely revolved on their respective axes. Directly over and near each of the cylinders A B a roller, I or F, is placed. Two other rollers, K H or G E, are disposed above each of the rollers I F in manner as shown in Fig. 3. Besides the said rollers to each cylinder, the machine, whether having one or more drying-cylinders, should have two more rollers, C D, arranged above the rollers K H or G E. Whether the machine has either one or two drying-cylinders, it is to have four other rollers, L M N O.

If the machine has but one cylinder, A, the rollers N O should stand in the same relation to it as they do in Fig. 3 to the cylinder B.

The endless apron R, in case the machine has but one drying-cylinder, would be carried under and partially around the said cylinder; thence between and over and on the two rollers K H, above it; thence around the rollers L M N O. But when the machine has two cylinders, the apron R should run around them, and the several rollers, E F G H I K L M N O, in manner as represented in Fig. 3.

The upper endless apron, S, after going

around the two rollers C D, should run between those parts of the other apron which extend from the rollers K H to the cylinder A, and should go around the roller I, in manner as shown in Fig. 3. In case two drying-cylinders are employed in the machine, the said endless apron S should also be extended around the roller F and between the rollers G E, and, with respect to the other apron, in manner as represented in Fig. 3.

Over each of the drying-cylinders A B, and between the two aprons, there is arranged in manner as shown in Fig. 3 an inclined comb-plane or guide, P, the object of which is to direct the sheet of paper from the drying-cylinder up to the bite of the two endless aprons, where they go around either of the rollers E H.

In operating with the machine the drying cylinder or cylinders and the endless aprons, being supposed to be in motion in the direction denoted by the arrows in Fig. 3, the sheets of paper to be dried are to be successively laid on the upper surface of that part of the endless apron R which may extend from the roller L to the roller K. Next, the sheet will be carried down between the roller K and the apron S, and will be directed on the cylinder A, and between it and the apron going around it, after which the sheet will be laid on the curved surface of the cylinder, and finally discharged therefrom between the two aprons, which, when one cylinder only may be used in the machine, will next eject the sheet from between them; but in case two cylinders may be employed, will direct the sheet to and on the other cylinder before ejecting such sheet from the machine.

I claim—

The said improved paper-drying machine, constructed with one or more drying-cylinders, A B, two endless aprons, R S, and sundry guide rollers and planes, arranged in manner and so as to operate substantially as described.

G. S. ROGERS.

Witnesses:

R. H. EDDY,

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