

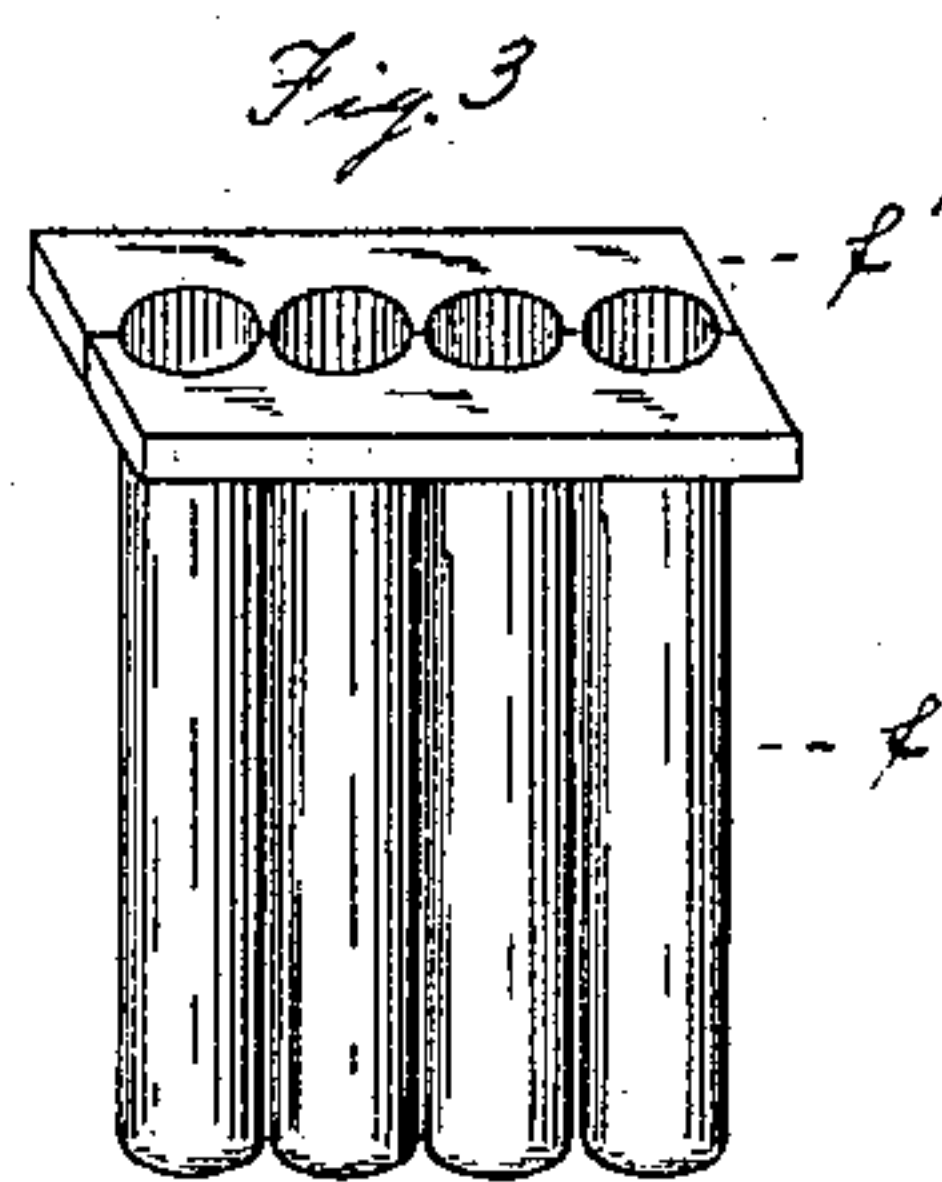
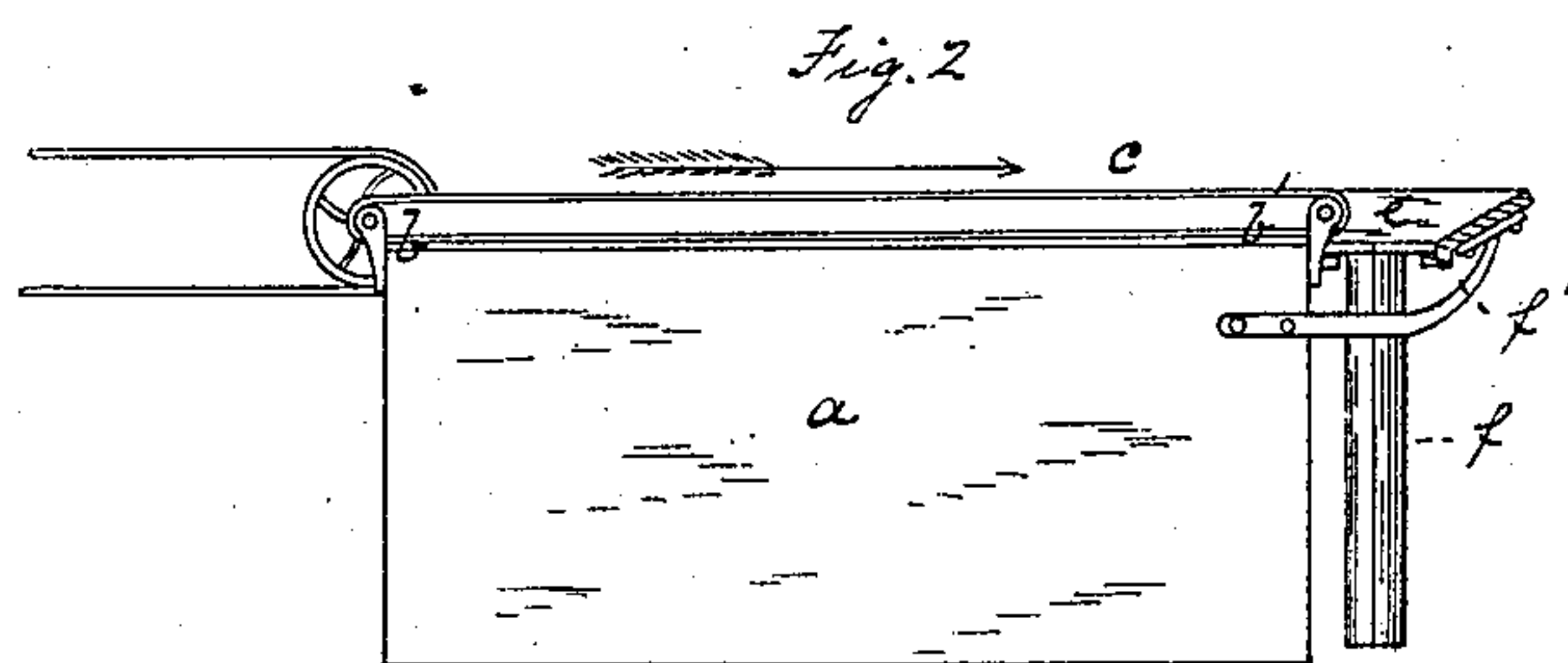
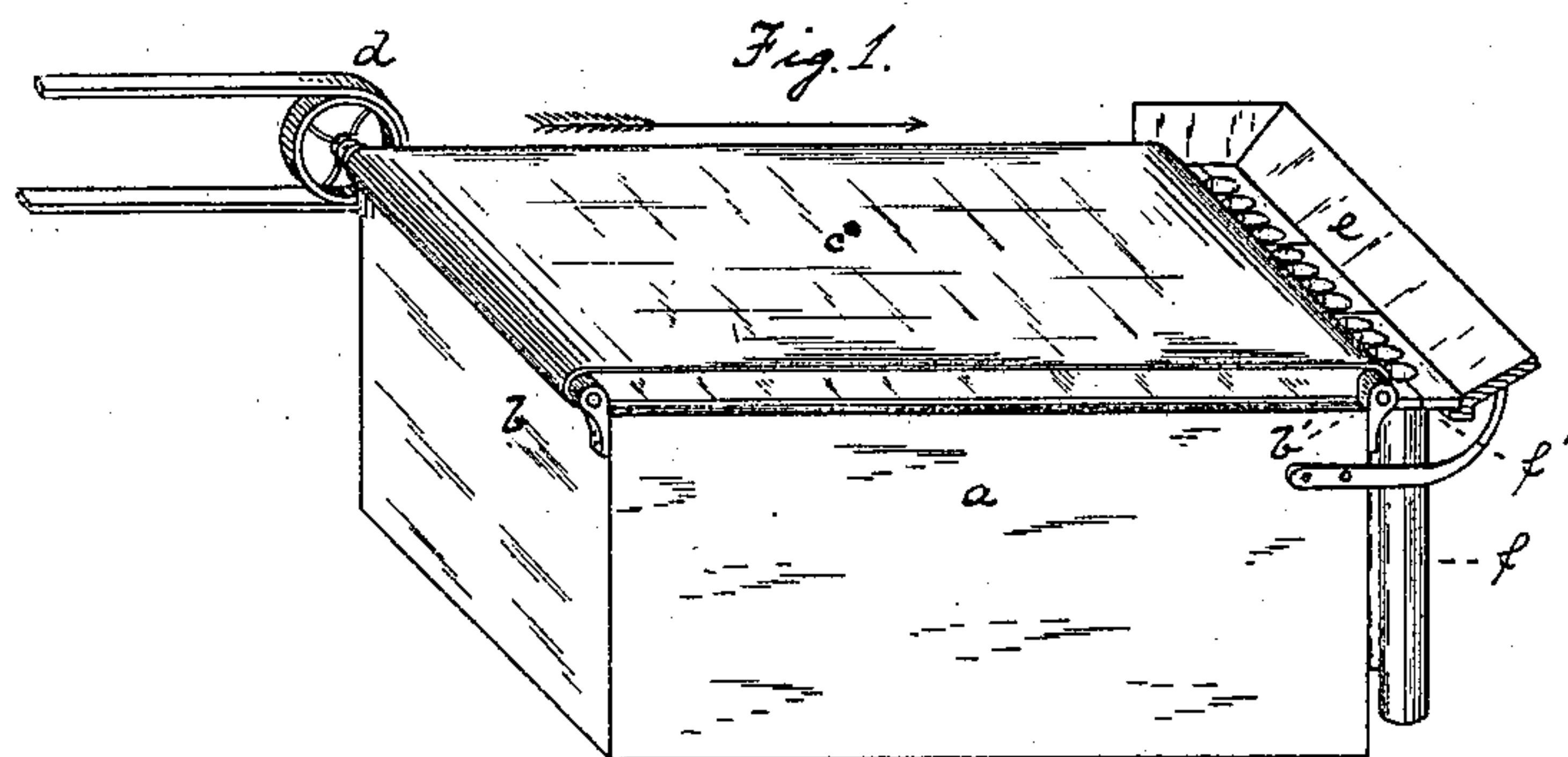
(No Model.)

J. McCLURG.

MACHINE FOR PACKING CRACKERS.

No. 320,946.

Patented June 30, 1885.



Witnesses.

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JAMES McCLURG, OF ALLEGHENY, PENNSYLVANIA.

MACHINE FOR PACKING CRACKERS.

SPECIFICATION forming part of Letters Patent No. 320,946, dated June 30, 1885.

Application filed October 13, 1883. (No model.)

To all whom it may concern:

Be it known that I, JAMES McCLURG, of the city of Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Machines for Packing Crackers; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to devices for arranging crackers, snaps, biscuits, &c., so that they may be easily and rapidly packed in boxes; and it consists, mainly, in combining with a traveling endless apron or carrier and guide-hopper detachable cylindrical pockets or receptacles, wherein the articles assemble in stacks, which detachable cylindrical pockets may be removed with their contents for the purpose of transferring the crackers to and arranging the same in boxes or packages; and it consists, secondarily, in detachable cylindrical pockets formed in sections and separable longitudinally, to facilitate the orderly removal of the crackers or contents of said pockets, all as will hereinafter more fully appear.

I will now describe my invention so that others skilled in the art may manufacture and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a perspective view of my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a perspective view of a section of the pipes or cylinders detached.

Like letters of reference indicate like parts wherever they occur.

In Figs. 1, 2, and 3 of the drawings, *a* represents a table, at the ends of which rollers *b b'* are mounted in suitable bearings. Mounted on these rollers, and extending from one to the other, is an endless band or apron, *c*, of cloth, rubber, or other suitable material.

Keyed to one end of the roller *b* is a band-wheel, *d*, by means of which power is applied to the roller. At the other end of the table, beyond and slightly below the roller *b'*, is a hopper or fence, *e*, having inclined sides or faces, which serve to direct the crackers into the vertical cylinders, which arrange or stack the crackers in columns.

Extending from the bottom of the hopper *e*

vertically downward are pipes or cylinders *f*, closed at their lower end, and having a flange or leaf, *f'*, at their upper ends, which ends are open, by means of which flanges they are suspended from the bottom of the hopper. These pipes or cylinders, the diameters of which correspond with the article to be packed, are divided vertically in two equal sections, which sections are held together by suitable hooks or clamps, or by being placed within the hopper.

Instead of forming the sections of the several pockets or cylinders in separate pieces, I prefer to have the corresponding sections of the separate cylinders united laterally at their edges and by a continuous flange, *f'*, in rows or series of four or more. These pipes or cylinders are preferably formed of light sheet metal, such as galvanized or tinned sheet-iron.

The operation is as follows: Power having been applied to the roller *b*, the upper fold of the apron *c* is caused to move toward the hopper *e*. The crackers, snaps, or biscuit, as they are brought or delivered from the oven, are placed on the apron, and are carried thereby to the end of the table, when they fall into the hopper, and, being guided by the inclined sides of the hopper, pass thence into the pipes or cylinders, one upon the other, and arrange themselves in the form of a column. As the cylinders are made to conform with the shape of the crackers to be arranged and packed, the crackers lie evenly and orderly therein. When the cylinders become filled, they are removed from the hopper, placed in a horizontal position, and the upper section removed from the lower, leaving the crackers arranged in orderly rows, face to face, in the lower sections. The crackers are then removed from the sections of the cylinders and placed in suitable packing-boxes.

By my invention the crackers are rapidly arranged in orderly rows or columns in the sections of the cylinders.

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

1. In a machine for arranging crackers, &c., for packing, the combination of an endless traveling apron or carrier, a guide-hopper ar-

ranged at the delivery end of the carrier, and detachable cylindrical pockets or receptacles arranged in the bottom of the guide-hopper, substantially as and for the purposes specified.

5 2. In a machine for arranging crackers, &c., for packing, the combination of an endless traveling apron or carrier and detachable longitudinally-separable cylindrical pockets or cracker-receptacles arranged at the de-
10 livery end of the traveling carrier, substantially as and for the purposes specified.

3. A series of detachable longitudinally-

separable pockets or receptacles for cracker-
packing machines, having all the semi-cy-
lindrical sections on a side united laterally by 15
a flange or face plate, substantially as and for
the purposes specified.

In testimony whereof I have hereunto set
my hand this 3d day of October, A. D. 1883.

JAMES McCLURG.

Witnesses:

W. B. CORWIN,
Jno. K. SMITH.