No. 748,344. PATENTED DEC. 29, 1903.

W. H. BUSSER.

BREAD CUTTER.

APPLICATION FILED JULY 13, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

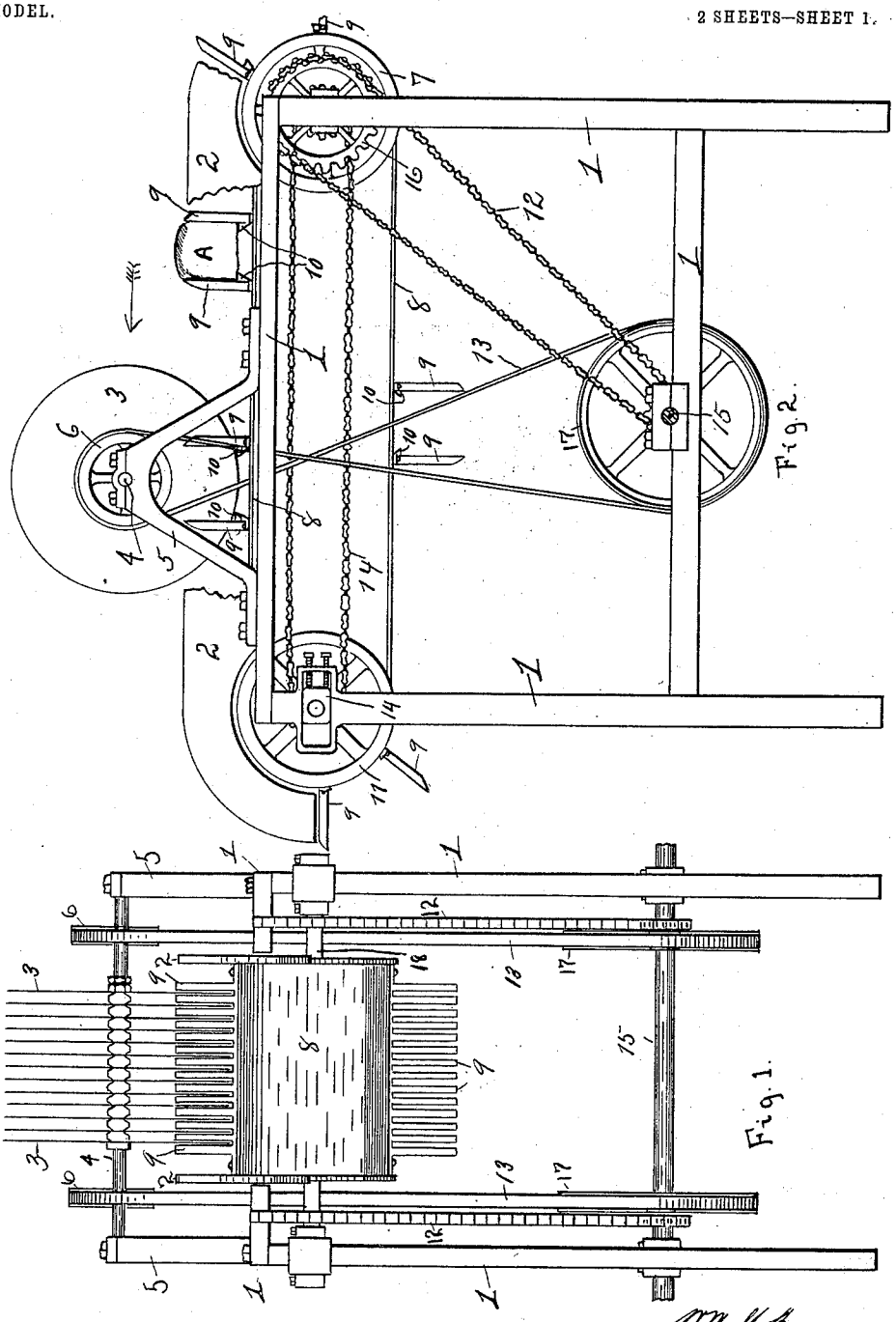

Fig. 2.

Fig. 1.

Witnesses.
J. Fred Heuberger.
C. M. Theobald.

Wm. H. Busser.
Inventor.
By A. J. McCarty
his Attorney.

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NO MODEL. 2 SHEETS—SHEET 2.

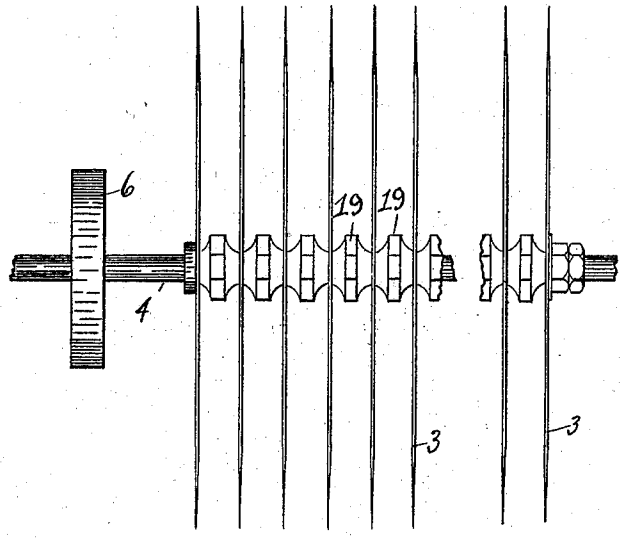

Fig. 3.

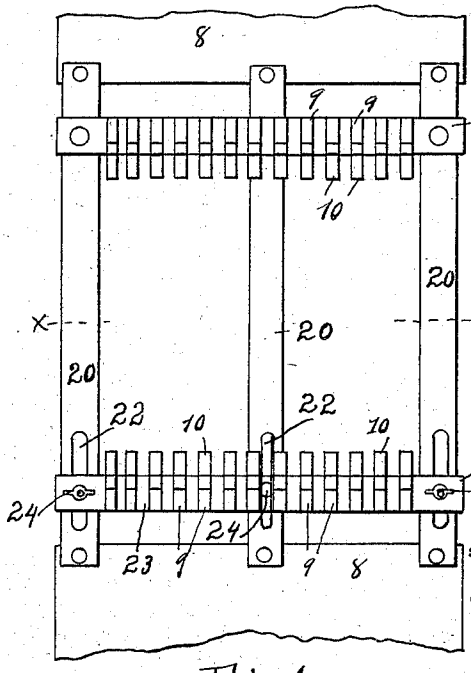

Fig. 4.

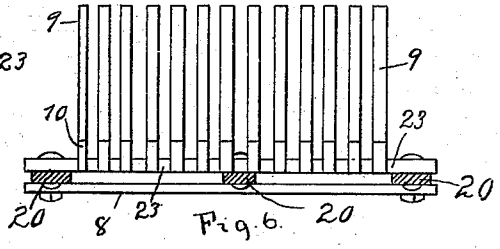

Fig. 6.

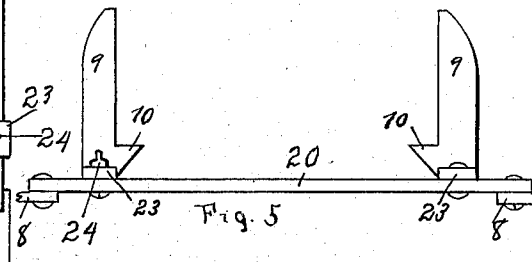

Fig. 5

Witnesses.
J. Fred Heuberger.
O. M. Theobald.

Wm. H. Busser,
Inventor.
By R. J. McCarty
his Attorney

No. 748,344. Patented December 29, 1903.

UNITED STATES PATENT OFFICE.

WILLIAM H. BUSSER, OF DAYTON, OHIO.

BREAD-CUTTER.

SPECIFICATION forming part of Letters Patent No. 748,344, dated December 29, 1903.

Application filed July 13, 1903. Serial No. 165,207. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BUSSER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Bread-Cutters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the reference characters marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in machines for cutting bread.

The object of the invention is to provide a machine of the above type in which quantities of bread may be cut into slices expeditiously and automatically delivered from the machine to proper receptacles.

Preceding a detail description of my invention, reference is made to the accompanying drawings, of which—

Figure 1 is a front elevation of my improved bread-cutting machine. Fig. 2 is a side elevation with parts of the guard broken away. Fig. 3 is an enlarged detached view of the rotary cutters. Fig. 4 is an enlarged plan view of a portion of the carrier, showing the position of one of the bread-holders. Fig. 5 is a side view of a portion of the carrier with one of the bread-holders attached. Fig. 6 is a cross-section on the line x x of Fig. 4.

Throughout the specification similar reference characters indicate corresponding parts.

1 designates the various parts of an upright frame which constitutes the main supporting-frame of the machine and which in actual practice is inclosed in a suitable cabinet, so that the working parts below the table are concealed.

2 designates guards which are arranged on opposite sides of the table and are designed to prevent any accidental contact of the hands of the operator with the rotary cutters 3. The guards 2 are removed from the machine, as shown in Fig. 1, in order to avoid obscuring the more essential features of the machine.

The rotary cutters 3 are mounted on a horizontal shaft 4, which is journaled in bearings 5, that are rigidly secured to the frame. Each of said cutters is uniformly spaced upon the shaft by means of a series of hubs 19, the spaces between said cutters being preferably such as will cut a loaf of bread into slices of about five-eighths of an inch thick; but this may be regulated according to the thickness of the slices required.

17 designates driving-pulleys, through which power is introduced to the rotary cutters 3 through belts 13, which connect with pulleys 6 on opposite ends of the cutter-shaft 4.

8 designates an endless carrier, mounted on drums 7 and 11 and driven from shaft 15 through sprocket-chains 12, said sprocket-chains passing around suitable chain-wheels on shaft 15 and around suitable chain-wheels 16 on the shaft 18, upon which drum 7 is mounted.

The endless carrier 8 supports a suitable number of bread-holders, each of which consists of two upright grates 9, projecting from bars 23. The open spaces between the bars of said grates are equal to the spaces between the cutters 3, and said cutters pass through said open spaces as the bread-holders are advanced thereto, and the said bars will hold the slices of bread when cut. Each of the grates 9 is independently connected to the carrier 8 by means of metallic straps 20, which have their ends riveted or otherwise rigidly attached to the carrier 8. The portions of the carrier at which these bread-holders are secured are cut out so that the metallic straps 20 form portions of the body of said carrier. It may be stated also that the carrier may be a continuous belt.

10 designates shoulders projecting laterally from the inner sides of the bread-holder bars 9 and which are designed to support a loaf of bread in a suitable elevated position from the carrier 8 to permit the cutters 3 to freely pass through the spaces between said bars without the edges coming in contact with the lower horizontal bars 23 of said bread-holders. One of the grates 9 is adjustably mounted on the metallic straps 20 by means of oblong slots 22 in said straps and binding-screws 24, which pass through said slots and through the base or horizontal bar 23 of said grate. (See Fig. 4.)

In Fig. 2, A designates a loaf of bread contained in one of the bread-holders and rest-

ing in an elevated position upon the shoulders 10. The bread-holders, with their contents, advance in the direction of the arrow, Fig. 2, and pass the cutters 3, the latter cutting the loaves of bread. As the said holders pass around the drum 11 at the rear of the machine they spread or open, owing to their passage around a part of the circle of the drum 11 and owing to their being independently attached to the carrier. When the bread-holders are thus spread or widened, and it will be observed that one of them is in such position at the drum 11, Fig. 2, the slices of bread will fall therefrom by gravity and will be delivered to a suitable receptacle or basket placed beneath. In the rotation of the endless carrier 8 it will be readily understood that when the bread-holders are in a horizontal position they are always closed, whether on the upper or lower part of the carrier, and after each of said bread-holders discharges its contents of sliced bread in passing around the drum 11 it advances to the forward drum 7 and opens to receive the bread, after which it assumes a closed or upright position.

The bearings 14 for the shaft of the drum 11 are adjustable, as shown in Fig. 2, in order that any slack of the carrier 8 may be taken up whenever necessary. The speed at which the rotary cutters are run may be as desired. The higher the speed the more perfect is the cut.

Having described my invention, I claim—

1. In an automatic bread-cutter and deliverer, a series of rotary cutters in combination with a series of bread-holders, each of said bread-holders consisting of two upright grates or open bars which are attached to an endless carrier, said grates being provided with shoulders upon which the loaves of bread are supported in an elevated position in order that the rotary cutters may cut through the loaves unrestricted, and means for driving said endless carrier, substantially as set forth.

2. In an automatic bread cutter and deliverer, the combination with a series of rotary cutters, an endless carrier, drums upon which said carrier is mounted, a series of bread-holders mounted upon said carrier, each of said bread-holders consisting of two independently-mounted grates, so that when said bread-cutters pass over the rearward drum, said grates will spread and deliver the slices of bread automatically therefrom, substantially as set forth.

3. In an automatic bread cutter and deliverer, the combination with a series of rotary cutters, of an endless carrier mounted below said cutters, drums upon which said carrier is mounted, a series of bread-holders consisting of two independently-mounted grates, one of which is adjustable on the carrier, and means for rotating one of the drums of said carrier, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. BUSSER.

Witnesses:
R. J. McCARTY,
JOHN R. DEMPSEY.