

The invention relates to the construction of a vibrating dryer with a drive flange vibrator causing precession of the granular material inside the drying chamber. The presented drive solution forces the peripheral movement of the granular material in the dryer, and the stationary stirrer- mixers block ensures the movement of the granular material "up" in the drying chamber. The stirrer is attached to the bottom or to the lid of the dryer. Mixing the bed accelerate the drying process and ensures an even distribution of moisture in the dried material.

How it is build and working

The dryer consists of a base (1) and a vibrating table (3) with a spring suspension (2). The air supply chamber (5) and the drying chamber (10) with a sieve bottom (a grate) (6) are placed on the vibrating table. A block of stationary mixers (11) was installed inside the drying chamber. The dryer is driven by a flange vibrator (4), fixed centrally to the vibrating table. Warm air (7) supplied by the fan and the heater is directed to the sieve chamber (5) and then through the sieve (6) to the chamber (10) equipped with a block of stationary agitators (11). The dryer is closed with a lid with a dosing valve (9). The dryer is emptied with the valve(8) placed in the bottom of the chamber (10).

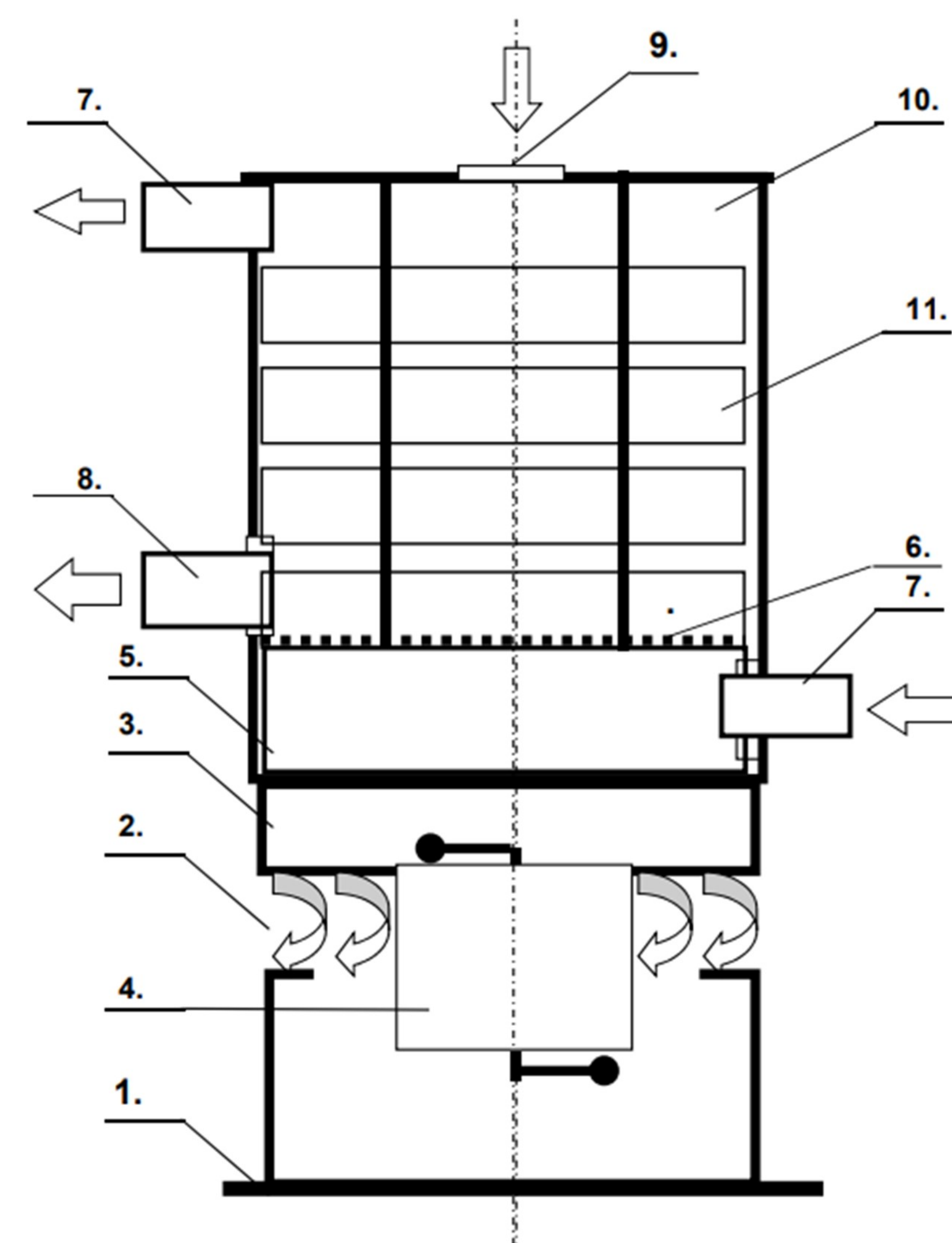


Fig. The vibrating dryer



Photo. The vibrating dryer

Advantages of the invention

- The solution of the vibrating precession dryer according to the invention simplifies the construction and makes it possible to resign from two driving vibrators used in dryers operating in a similar solution present on the market.
- The vibration drive in the vibrating precession dryer is hidden in the base, which is beneficial in terms of safety and less exposure of the motor to dust.
- The dryer can work with the air flow both "top down" for very fine and dusty materials and "bottom up" for other granular materials.