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LI et al.(10) **Pub. No.: US 2023/0231203 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **VARIABLE-DIAMETER ADSORPTION
WINDING NEEDLE MECHANISM AND
WINDING MACHINE****Publication Classification**(51) **Int. Cl.****H01M 10/0587** (2006.01)**B65H 54/70** (2006.01)(52) **U.S. Cl.****CPC** **H01M 10/0587** (2013.01); **B65H 54/707**
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ABSTRACT

A variable-diameter adsorption winding needle mechanism and a winding machine are provided. The variable-diameter adsorption winding needle mechanism includes a winding needle assembly, a first adsorption winding needle, a second adsorption winding needle and a pin assembly. A plurality of adsorption holes are provided on the outer peripheral surfaces of the first adsorption winding needle and the second adsorption winding needle. At the same time, the winding needle assembly is also used to drive, under the driving of the pin assembly, the first adsorption winding needle and the second adsorption winding needle to move close to or away from each other.

