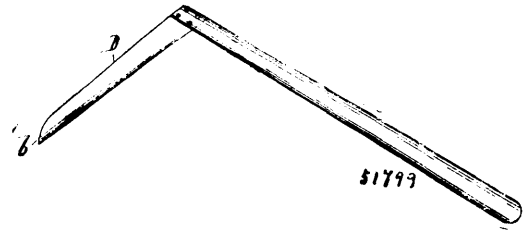
munication between the sections, substantially as and for the purpose specified. 5th. In a hot water heater, the combination of a series of sections, each having a water chamber forming a single coil of an advancing spiral, an outer casing formed in parts integral with the sections forming with the surfaces of the sections a spiral smoke flue, and a water post formed in parts with the sections and communicating with the water chambers therein, ubstantially as and for the purpose specified. 6th. In a hot water heater, the combination of a series of sections, each having a water chamber forming a single coil of an advancing spiral, an outer casing formed in parts integral with the sections forming with the surfaces of the sections a spiral smoke flue, means of communication between the sections and a water post formed in parts with the sections, and communicating with the lowest parts of the water chambers therein, and a water post similarly formed to communicate with the highest parts of the said water chambers, substantially as and for the purpose specified. 7th. In a hot water heater, a section forming a dome-shaped combustion chamber above the fire-pot, an opening being left at the front part of the dome to serve as a smoke exit, and a water chamber formed in the section about the dome, substantially as and for the purpose specified. 8th. In a hot water heater, a section forming a dome-shaped combustion chamber above the fire-pot, an opening being left at the front part of the dome to serve as a smoke exit, and a water chamber formed in the section about the dome, the portion of the dome about the opening being sharply turned down to form an eddy in the com bustion chamber, substantially as and for the purpose specified. 9th. In a hot water heater, a section forming a dome-shaped combustion chamber above the fire-pot, an opening being left at the front part of the dome to serve as a smoke exit, and a water chamber formed in the section about the dome, the portion of the dome about the opening being sharply turned down to form an eddy in the combustion chamber in combination with a damper located in the outer casing of the heater in proximity to the turned down portion of the section so that an air blast may be admitted to meet the products of combustion eddying in the chamber, substantially as and for the purpose specified. 10th. In a water heater, the combination of the annular fire-pot section B, having a water chamber E divided by the half diaphragm F, the dome-shaped combustion chamber section C with a smoke exit therein, the sections D each having a water chamber forming one coil of an advancing spiral, an outer casing U formed in parts integral with the sections D and forming with the surfaces of the sections a spiral smoke flue, the water posts K and M communicating with one another at their lower ends, formed in parts integral with the sections, and having openings B and *c* communicating with the sections D, and an opening communicating with the water chamber of the section C, a water post H formed in parts integral with the sections B and *c* and having openings therein communicating with the water chambers of the said sections, a water inlet G being formed in the fire pot section B, and a water outlet in the water post K, substantially as and for the purpose specified. 11th. In a water heater, the combination of the annular fire pot section B, having a water chamber E divided by the half diaphragms F, the dome-shaped combustion chamber section C with a smoke exit therein, the sections D each having a water chamber forming one coil of an advansing spiral surrounding the central cylinder forming a direct smoke flue, a damper located in the said cylinder, and outer casing U formed in parts integral with the sections D, and forming with the surfaces of the sections a spiral smoke flue, the water posts K and M communicating with one another at their lower ends, formed in parts integral with the sections and having openings *b* and *c* communicating with sections D, and an opening communicating with the water chamber of the sections, a water post H formed in parts integral with the sections B and *c* and having openings therein communicating with the water chambers of the said sections, a water inlet G being formed in the fire-pot sections B, and a water outlet in the water post K, substantially as and for the purpose specified. 12th. In a water heater, the combination of the annular fire-pot section B having a water chamber E divided by the half diaphragm F, the dome-shaped combustion chamber section C with a smoke exit therein, having a dome-shaped water chamber therein and an independent annular water chamber L which may be connected by pipes and nipples with a kitchen boiler or with the other sections of the heater, the sections D each having a water chamber forming one coil of an advancing spiral, an outer casing U formed in parts integral with the sections D and forming with the suafaces of the sections a spiral smoke flue, the water posts K and M communicating with one another at ther lower ends, formed in parts integral with the sections. and having openings *b* and *c* communicating with the sections D, and an opening communicating with the water chamber of the section C, a water post H formed in parts integral with the sections *b* and C and having openings therein communicating with the water chambers of the said sections, a water inlet G being formed in the fire-pot section, and a water outlet in the water post K, substantially as and for the purpose specified.

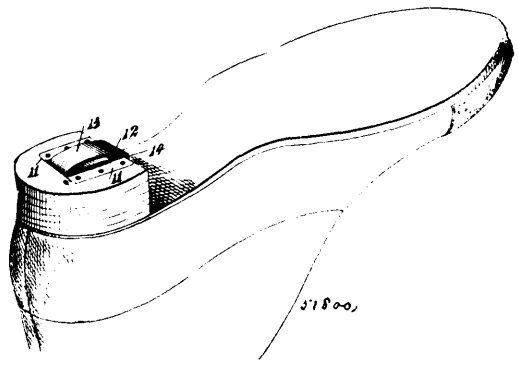
No. 51,799. Corn Cutter. (*Machine à couper le ble d'inde.*)

Austin Holsopple, Geistown, Pennsylvania, U.S.A., 27th March, 1896; 6 years. (Filed 26th February, 1896.)

Claim.—1st. A corn cutter comprising a handle, and a straight blade secured in one end thereof, substantially as shown and described. 2nd. A corn cutter comprising a handle, and a straight blade secured in one end thereof, said blade being set in the handle at an inclination thereto, the angle between the blade and handle being greater than a right angle, substantially as shown and described. 3rd. A corn cutter comprising a handle, and a straight blade secured in one end thereof, said blade being set in the handle at an inclination thereto, the angle between the blade and handle being greater than a right angle, and said blade being tapered in cross-section from the edge to the back and pointed, substantially as shown and described.



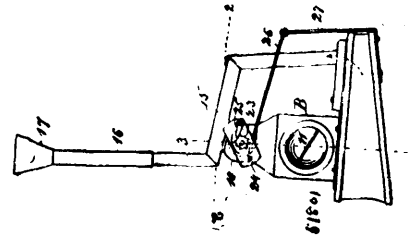
No. 51,800. Spring for the Soles and Heels of Boots and Shoes. (*Ressort pour talons et semelles de chaussures.*)



George Elbridge Swan, Beaver Dam, Wisconsin, U.S.A., 28th March, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. A spring tread for boots and shoes, consisting of a spring plate bent upon itself to form a body and a wearing or tread member, the wearing or tread member being free at one end and arranged to have movement at its free end in a vertical direction, as and for the purpose specified. 2nd. A spring tread for boots and shoes, comprising a well section, a base section of a spring material located within the well section, and a wearing or tread section curved over the base section and having its forward end free and arranged for vertical movement independently of the other portions of the device, as and for the purpose specified. 3rd. A spring tread for boots and shoes, the same being constructed of a single piece of spring material, and comprising practically a base portion adjacent to the surface of the boot or shoe to which the device is to be secured, and a wearing or bearing section extending beyond the surface to which the device is to be applied, one end of the wearing or bearing surface being free and adapted for movement to and from the surface supporting the device, as and for the purpose specified.

No. 51,801. Machine for Distributing Insect Powder.
(*Machine à distribuer la poudre à insecte.*)



John B. Brown, Eau Claire, Wisconsin, U.S.A., 28th March, 1896; 6 years. (Filed 28th February, 1896.)

Claim.—1st. In a machine for distributing insect-powder, the combination with a bellows, a receptacle carried thereby and having its free end contracted, a feed wheel located in the contracted portion of the receptacle, substantially filling the same and operated from the bellows, the outlet of the receptacle being above the said wheel, and a valve located above the outlet of the said receptacle, of a delivery and force pipe connected with the bellows and connected with the outlet of the receptacle, an means, substantially as shown and described, for controlling the distribution of the material