

"Patently successful" is a series of articles presenting a selection of patented Australian engineering inventions that conquered the world but whose Australian origins are not widely known.

Maintaining livestock in good health

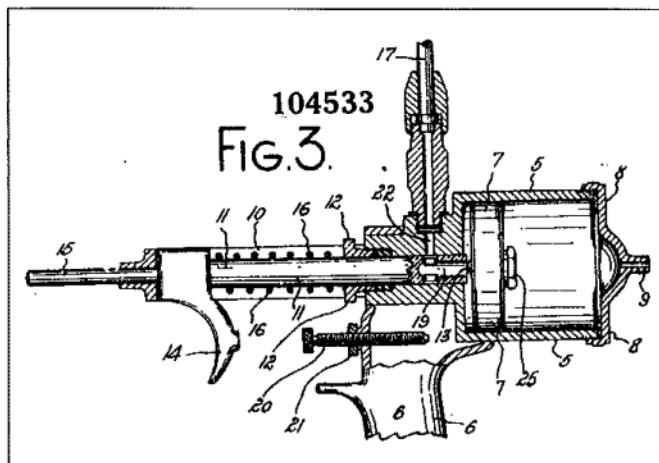
By Edward Genocchio

Since the early days of farming, maintaining livestock in good health has been of the utmost importance to a farmer. Various medicines need to be administered and the correct application of such medicaments to each animal is an important task. To help in this task automatic applicators were developed. One of the world leaders in this type of equipment is Australia's NJ Phillips, based on the Central Coast of New South Wales.

Norman J Phillips started business in 1930 making automotive equipment before switching to drenching guns for sheep. The company had a small respite during World War 2 when they made military parts for the Defence Force before continuing uninterrupted to this day designing, manufacturing and patenting innovative applicator guns.

The company started to grow exponentially in 1937 when Phillips engineered and patented an automatic vaccinator. The vaccinator called Drenching Syringe of Australian Patent No 104,533, dated 12 July 1937, was designed to administer predetermined doses of drench to sheep or other animals. The syringe includes a barrel (5), mounted on a handpiece (6) fitted with a closure cap (8) formed with a nipple (9) through which drench

is supplied under pressure from a reservoir. A finger lever (14), influenced by a spring (16) is actuated to operate a valve (13) into engagement with a lock nut (25) causing the piston (7) to move to the other end of the barrel (5) to admit drench fluid through ports connected to a passage (22) and nozzle (17). An adjustment screw (20) regulates the stroke of the piston (7) and is secured in position by a lock nut (21).



Sketch of the vaccinator called Drenching Syringe, from Australian Patent No 104,533, dated 12 July 1937.

The automatic vaccinator was a hit within the agricultural industry due to its accuracy to measure a liquid dose, ease of use and manufacturing precision. The vaccinator was so successful it continued to be sold for over 20 years.

On the back of such success the company has continued to grow, now being one of the world

leaders in applicator guns. The company is still wholly Australian owned and operated, designing, patenting and manufacturing high-quality precision engineering products. ■

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