

"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

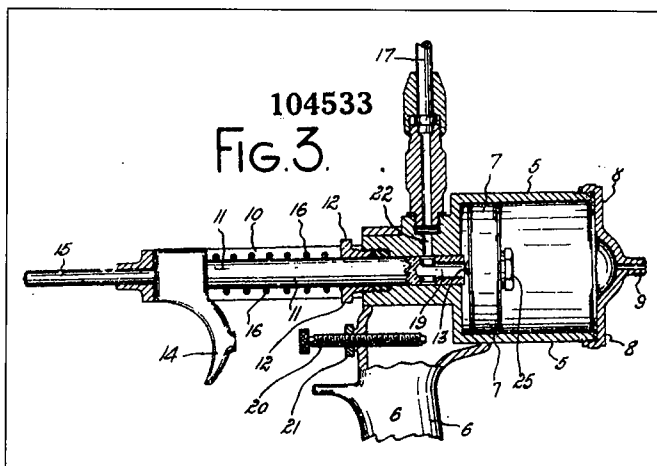
By Edward Genocchio

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).

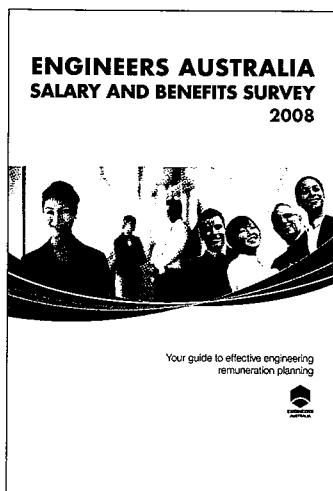


Sketch of the vaccinator called Drenching Syringe, from Australian Patent No 104,533, dated 12 July 1937.

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

Engineer and patent attorney Edward Genocchio is a principal of patent and trademark attorneys Spruson & Ferguson ([www.sprusons.com.au](http://www.sprusons.com.au)).

## ENGINEERS AUSTRALIA SALARY AND BENEFITS SURVEY 2008



This publication, now in its 6th year, offers a different perspective on salaries and benefits as the information was derived from employers' HR departments. The online survey was commissioned by Engineers Media, undertaken by New Focus Research Pty Ltd and completed in December 2008.

Compiled with input from 234 engineering employers, employing approximately 67,500 engineers, this publication gives you the latest data on gross base salaries and salary packages by total sector, discipline and grade. Separate tables analyse the data by private and public sectors and by location.

To purchase a copy in pdf format go to [www.ebooks.com.au](http://www.ebooks.com.au) or contact EA Books customer service on 02 9438 5355, fax 02 8823 6526.

**Non-member price \$50 plus GST Member price \$35 plus GST**

Printed copies are also available:

**Non-member price \$65 plus GST Member price \$45.50 plus GST**

Plus packaging and handling \$12.00 plus GST = \$13.20.

The publication will be delivered marked Private and Confidential to the person nominated when ordered.

