

"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.

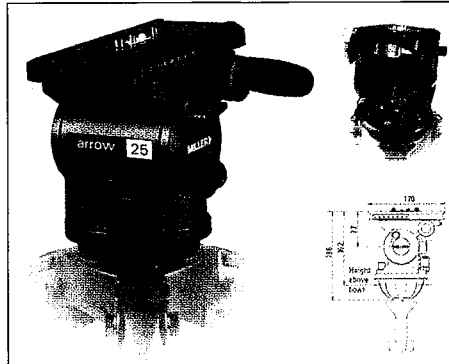
Camera mount for smooth panning

By Edward Genocchio

When watching documentaries there is likely to be a slow moving shot panning across the wilderness or sky. That slow smooth panning shot is actually very difficult to achieve, especially when shooting in rough terrain. Early tripods to assist in stabilising a camera during shooting were basically only a leg or stand upon which the camera rested. They could not eliminate vibrations caused by the cameraman during a panning shot. The vibrations typically were removed later in the editing room.

Tripod mounts that sat above the legs attempted to solve the vibration problem by using metallic friction plates. However, such devices did not reduce the vibrations significantly.

One of the first people to address the need for a tripod camera mount that could provide better stability and accuracy during movement was Eric Miller from Sydney. In 1946 he replaced the heavy complex metal gearing and counterweight arrangements of existing tripod mounts with a pressurised



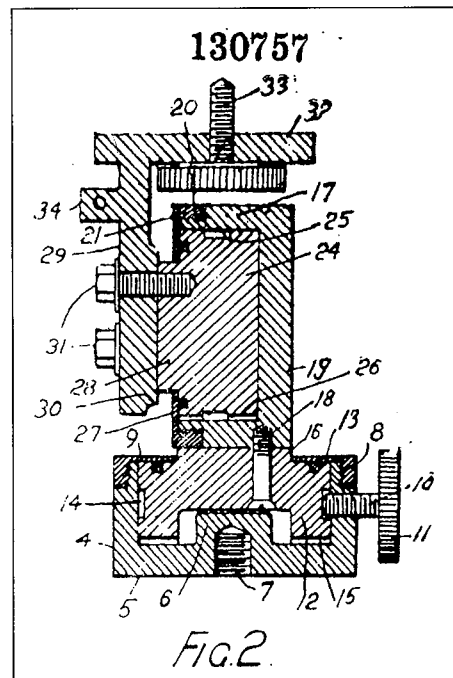
Modern camera mounts are still based on Miller's original cylinder concept.

fluid-filled mount. The fluid in the mount resisted the movement of connecting drums to provide a smooth pan and tilt.

Miller's invention was the subject of Australian Patent No 130,757.

The mount includes a cylinder (4) with a closed end (5) and a boss (6) which is screwed internally at (7) for attachment to a foundation (such as tripod legs) and a cylindrical block (12) with a recess (14), and ports (16) which are rotatably fitted in the cylinder (4). A second cylinder (17), mounted on the cylinder (4), has a rotatable cylindrical block (24), with a recess (25) and ports (26) therein. A bracket (29, 32) supports the mount and has a lug (34) to receive an operating handle. The cylinders (4, 17) are charged with a liquid to fill the space between the blocks (12, 24) and the respective cylinders (4, 17).

To this day, camera mounts are still based on Miller's original cylinder concept. The company Miller started has now been in business for over 55 years with an impressive factory in Sydney where a team of engineers continues his legacy of designing and manufacturing precision engineered camera support equipment.



Sketch for Australian Patent No. 130,757

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