

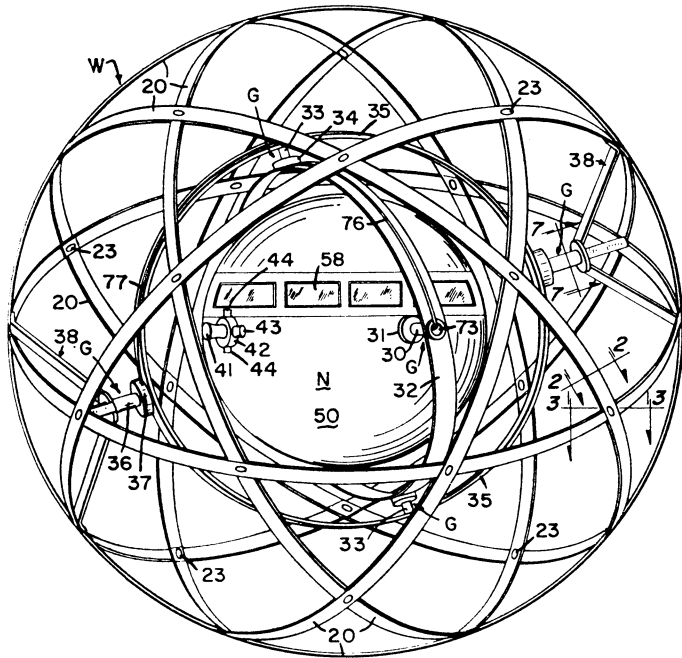
Current Patents

LUNAR VEHICLE

Tapping Undeveloped Patents

The United States has two great untapped sources of wealth, says Prof. Arthur A. Ezra: a vast number of undeveloped patents, and a large squad of eager graduate engineering students.

Dr. Ezra, of the mechanical engineering department, University of Denver, expects to turn his students loose



on some promising patented ideas and see whether they can't be developed.

One of the first may be an outlandish vehicle he designed while working for Martin-Marietta Corp. It was granted patent No. 3,327,801 last week.

Aimed at travel on the moon surface, the Ezra vehicle has a cabin suspended within a number of huge metal hoops. The hoops form a sphere that can roll in any direction, and the cabin is pivoted inside so that it stays upright no matter where the vehicle moves.

Power is supplied by a small rocket or jet engine that can be aimed to steer the craft. The cabin support pivots have a braking system to slow or stop it.

Dr. Ezra says he'll have his students look into questions of cost, marketing and financing to see whether patent ideas studied are practical.

SURGERY

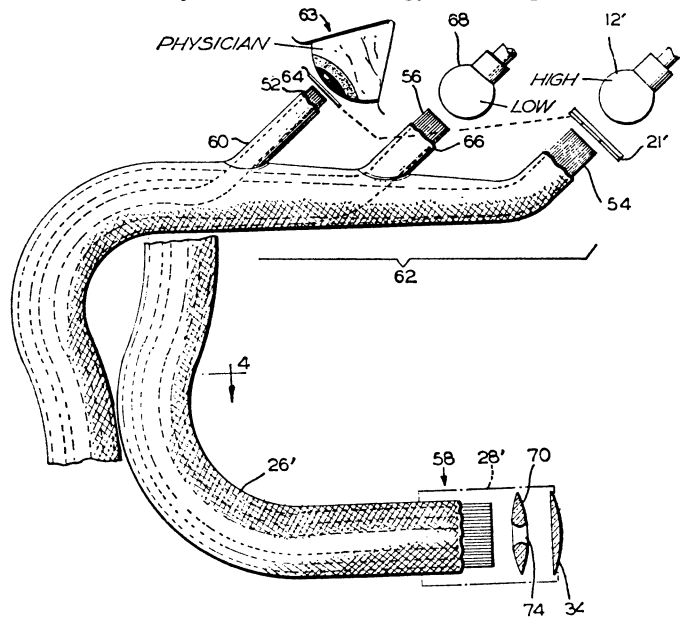
Bleeding Stopped by Light

A big chore in any surgery is tying off cut blood vessels in the operating area so the patient doesn't lose blood and the surgeon can see what he's doing.

A newly patented device that coagulates blood by shining light on it could speed the process. The light is carried to the right spot through optical fiber, a material that transmits light through a flexible tube.

Dr. Harry H. Le Veen, chief of surgery at Brooklyn,

N.Y., Veterans Administration Hospital, who developed the device with a colleague, Dr. Ira H. Kaufman, said it had been tried on rabbits, although no human use had been made as yet. Losses of energy in the optic fiber are



one problem that has to be solved, he said, but with the development of more efficient fibers and better light sources the idea has promise.

Blood coagulates particularly well under strong green light, according to Dr. Le Veen. This is a big advantage because it doesn't affect other tissues in the area. The patent is No. 3,327,712.

PARTICLE PHYSICS

Omnitron: Patent and Delay

The Omnitron, which felt the axe of Congressional appropriations cutting received a patent last week.

The machine is a high-energy atom-smasher designed to accelerate not just protons or electrons, but nuclei of all 92 natural elements, from lightweight hydrogen to uranium. Designed by three physicists at the University of California, Berkeley, it was included in the Atomic Energy Commission's fiscal 1968 budget, but the \$4 million initial appropriation was cut out by the Joint Atomic Energy Committee.

The Omnitron's usefulness, which the Committee didn't deny, falls not only in physical research but also in medicine. Scientists believe beams of high energy, heavy particles could possibly be used to kill cancer cells.

Most intriguing from a physicist's point of view is the possibility of creating super-heavy atoms. Present known elements have atomic numbers up to 103. It is thought that elements with numbers of 114 or 126 would be stable if they could be created. The Omnitron might do this.

The Joint Committee said that tight budgets, plus a general policy of taking a long look at major accelerator projects, led to the dropping of the project this year.

The inventors, Drs. Albert Ghiorso, Bob H. Smith and Robert M. Main, assigned the patent No. 3,328,708, to AEC.