## Patent Office: Progress and Change

by Frank Sartwell

The Patent Office in 1966 speeded up its procedures, cut down the number of pending cases, and was the subject of a major study which recom-



mended overhaul of its basic law (SN-12/17).

Presently, some 200,000 applications are pending. This is less than the 206,922 pending in 1965, which was less than the 219,691 pending in 1964,

Sartwell pending in 1964, when Commissioner Edward J. Brenner took office.

Applications that used to take three and a half years to process are now handled within 30 months. Commissioner Brenner has set a lag time of 18 months as a long-range goal.

The speed-up has been achieved by streamlining administrative procedures and by cutting the length of time an inventor has to respond to an examiner's findings from six months to four.

Patents granted showed an increase in complexity which characterizes contemporary invention. Space applications, aeronautics, laser technology, and human reproduction were among the fields where activity focused.

Among the patents issued in 1966: **Rubber-like plastics**—polymerized polypropylenes—now widely used industrially, and expected to have even more widespread use in the future, were covered by two patents, 3,258,455 and 3,260,708.

Thin layers of asphalt, placed two feet below the surface of sandy or arid soil, may hold one key for relieving the increasing worldwide food shortage. The asphalt layers keep water from seeping down through the sand or ground, holding moisture where crop roots can use it. Patent 3,276,208.

A digital computer that can be taught to recognize the patterns found in letters of the alphabet or in numerals, in speech or from moving targets uses electromagnetic, optical or acoustical sensors. Patents 3,275,985 and 3,275,986.

A contraceptive device that is finding increasing use around the world to conrol human births and reduce the population explosion was granted patent

552

3,250,271. The curved piece of plastic is known as the Lippes Loop.

Other inventions patented during the year:

A jet belt believed capable of keeping a man in the air for several minutes during which time he could travel a mile or so, exact performance figures being classified. Patent 3,243,144.

A method of making "white wheat" from bulgur as a rice substitute. Patent 3,228,771.

A simple, inexpensive test for pregnancy using a variety of chemical reactions, a possible forerunner to a home test for fertility on any given day. Patent 3,278,270.

An ambulatory device for use by paraplegics and others who have walking problems. Patent 3,249,368.

**Processes** involving the use of very thin layers of silver halide as the photographic film and techniques for transferring the images possible with the film. Patents 3,219,444, 3,219,445 and 3,219,448 through 3,219,452.

A system for tossing film packs and other small containers from space satellites and rockets such as might be used in the Vela Hotel, Samos and Midas satellites. Patent 3,262,365.

Two different systems for making salty water fresh enough to drink, one in commercial operation and the other being tested in a pilot plant. Patents 3,255,602 through 3,255,605; 3,255,514 and 3,255,817; 3,266,264.

Lasers made with semiconductors, a promising method for transmitting information from interplanetary space. Patents 3,248,669 through 3,248,671 and 3,265,990.

Among several radar devices held secret since World War II or shortly thereafter, a basic system for extending the range at which objects can be detected. Patent 3,266,037.

A system for landing aircraft on a cushion of air would allow it to come to a complete stop a few inches above a paved landing surface before touching down. Patent 3,275,270.

A method using gleaming fluorescent light to show where teeth have not been properly brushed. Patent 3,261,978.

The method used to insure receiving radio waves on earth from spacecraft orbiting as far as thousands of miles above earth's surface. Patent 3,262,116.

An all-purpose surgical stapler that

can be used to hold together many different kinds of living tissues after an operation. Patent 3,252,643.

A system that can be used from earth-circling satellites, space vehicles or high-flying balloons both for navigation and for controlling the craft. Patent 3,251,261.

A device being used experimentally to listen to heart sounds and check on blood pressure. Patent 3,249,105.

**Components** used on the first commercially available computer. Patent 3,245,039.

A wide range of devices in use to control the flow of traffic. Patents 3,241,103 through 3,241,110.

An all-weather landing system, called "Microvision," that shows the runway inside the cockpit as a pilot would see it during a normal clear-weather night landing. Patent 3,230,819.

The basic design of the "lifting body," the M2-F2. Patent 3,276,722.

A process for projecting colored pictures stereoscopically from two black and white films. Patents 3,221,559 and 3,221,600.

A method of controlling equipment electronically to determine a car's condition and the parts that need repair. Patents 3,238,769 through 3,238,772.

A device using lightweight solar cells to turn sunlight into electricity on space vehicles. Patent 3,232,795.

A method for treating money with a scent so that any thief stealing it can be easily traced by the odor. Patent 3,272,533.

An improved method to give an even coating to pills can also be used to obtain even mixing of fertilizers and other chemicals. Patent 3,253,944.

**The composition** of a high-temperature grease and methods of preparing similar materials. Patents 3,242,082 through 3,242,088.

A method to help keep stable the fusion reactions by which scientists hope to obtain electrical power. Patent 3,257,284.

A method of preparing polio vaccine so that it will not be contaminated with cancer-causing viruses. Patent 3,255,-081.

The pay television system tested in Hartford, Conn., in which picture and sound are sent out scrambled. Patent 3,238,297.

Science News / Vol. 90 / 24 December 1966