

New Device for Amplifying Light Passes Tests

New York (Science Service)—Successful operation of an optical maser, a new device for greatly amplifying light beams, was reported here.

It is expected to have important applications in sending and receiving signals from satellites and other objects in space, in projecting television pictures, in photographing astronomical bodies, and in medical diagnosis by X-rays or fluoroscopy. It will give a super-sharp picture heretofore unobtainable.

The optical maser, which produces a very sharply defined light beam using atomic methods, will also provide scientists with a new method for establishing standards of wavelength, for performing basic experiments in physics and for true amplification of light.

Dr. Theodore H. Maiman of Hughes Aircraft Company, Culver City, Calif., plans to report details of the optical maser in the Journal of Applied Physics, a publication of the American Institute of Physics here.

Suggested in 1959

The new atomic method for amplifying light beams was suggested early in 1959 by Dr. C. H. Townes of Columbia University here and Dr. A. L. Schawlow of Bell Telephone Laboratories, Murray Hill, N.J., who this year received a patent for it.

In the Hughes device, a light source, such as a powerful flash tube lamp, irradiates a synthetic ruby crystal. This optical energy excites the atoms to a higher energy state, from which the energy is re-radiated in a narrow band of frequencies.

The excited atoms are coupled to an atomic resonator and stimulated to emit the radiation together. (Maser is an acronym for Microwave Amplification by Stimulated Emission of Radiation.)

In ordinary light sources, the atoms radiate individually at random and the light from such sources is therefore incoherent. The light from an optical maser is coherent.

High Court Rules On Multnomah House Restriction

Salem (UPI)—Certain restrictions on lots in the Tunnelwood park subdivision of Multnomah county are not applicable, the Oregon Supreme Court ruled Wednesday.

The opinion by Justice Pro Tem Orval J. Millard affirmed Multnomah County Circuit Judge Alfred P. Dobson but modified his decision slightly.

The proposed restriction sought to prohibit erection of more than one dwelling on a single tract of land.

Mr. and Mrs. Herman A. Schmitt, owner of one large lot, wanted to subdivide into three parts and build three houses. Neighboring property owners objected and the Schmitts brought suit.

The high court held that purposes of the restriction was to prohibit only the building of multiple dwellings on any one tract but not subdivision and building of one house on each subdivision section.

Millard also wrote that the trial court went too far in removing the restriction as a cloud of the plaintiff's title because the restriction to build more than one house on a subdivision section is still legal.

California Pilot Wins Powder Puff

Wilmington, Del. (UPI)—Mrs. Aileen Saunders, El Cajon, Calif., won the Powder Puff Derby, the transcontinental air race for women pilots, for the second consecutive year Wednesday.

Mrs. Saunders has competed four times in the race which began from Torrance, Calif., last Saturday and ended at nearby New Castle County Airport, a distance of 2,509 miles.

Flying her Cessna 172 with Miss June Douglas, Fall River, Mass., as copilot, Mrs. Saunders averaged 118.15 miles per hour to receive a plus 15.15 based on the handicap established for each plane. Par speed was 103 miles per hour.

Mrs. Saunders will receive a trophy and \$800 in cash here Friday at a banquet of Ninety-Nines, Inc., sponsors of the cross country flight which began with 79 teams.

CHARGE NUCLEAR PLANS

Tokyo (UPI)—Communist China today accused Japan of planning nuclear armament by considering the development of missiles.



ADDRESSES DELEGATION - While Sen. John Kennedy, right, listens, Idaho's Sen. Frank Church, standing on a coffee table, on the eve of the Democratic convention's addresses the Idaho delegation in the Billmore Hotel in Los Angeles. Sen. Kennedy appeared at the Idaho caucus unexpectedly on the eve of the Democratic convention's nominating session. (UPI Telephoto)

Summit, Japanese Fiascoes Renew Traditional Channels

By BUEL W. PATCH (Editorial Research Reports)

Washington—With summit diplomacy put out of favor by the Summit and Japanese fiascoes, the advantages of seeking solution of international problems through traditional diplomatic channels or through the United Nations are re-emphasized.

President Eisenhower said, eight months after he took office in 1953, that the United Nations represented "man's best organized hope to substitute the conference table for the battlefield." Today he is probably more firmly of that opinion than ever.

Vice President Richard M. Nixon said on May 31 that it was time to give up summitry and go back to traditional diplomacy and to discussions within the United Nations.

Regular Procedure

U.N. Secretary General Dag Hammarskjold pointed out on the morrow of the failure at Paris that the United Nations provides a framework for diplomacy on any level governments desire, and it does so "as part of a regular procedure, without the building up of both expectations and problems in the way which it is difficult to avoid" in over-publicized summit conferences.

The United Nations, with delegates of all member countries stationed at headquarters in New York, provides also a framework for "non-publicized negotiations in which it is possible to play on the whole range of approaches which have grown out of the experience of traditional diplomacy," he said.

The roster of United Nations members has grown from the half a hundred of 1945 to four score and more today—82 to be exact. And the rapidity with which formerly independent territories, especially in Africa, are setting up for themselves promises to push membership of the world organization past the full hundred mark not long after another 15 years roll by.

Radical Changes

The United Nations, like any other youngster, has gone through some radical changes in its early years—changes at least in the sense of differences between 1945's expectations and 1960's realities.

The economic, social and humanitarian activities of the world organization—covering almost everything from agriculture, communications and banking to human rights, the status of women, and refugee relief—probably are more varied and more far-reaching than most people dreamed of in the beginning.

As for peace enforcement, which supplied the most compelling reason for creating the United Nations, activity has been more restricted and less successful than expected.

Cold War Complications

The Security Council, composed of the five great powers and six non-permanent members, was supposed to bear the brunt of that burden, but since 1951 the General Assembly has taken on more and more of it. The cold war is responsible.

The peace machinery set up by the Charter could work as planned, in most cases, only if unanimity prevailed among the permanent members of the Security Council. Such a condition has not prevailed.

As a result, the Soviet Union has used the veto power indiscriminately to block decisions favored by a majority of other Council members. Soviet-Western differences, moreover, have deprived the Security Council of the troops and planes that were to be

placed at its disposal to give it means of enforcing its decisions.

Some Successes

Despite these handicaps, Security Council intervention by peaceful means in a number of places—Indonesia, Israel, Kashmir, for example—has helped to bring about cessation of hostilities, if not in each case a full settlement of disputes. A fortuitous combination of circumstances—absence of the Soviet delegate from the Security Council, the proximity of large U.S. forces, lack of any question as to the identity of the aggressor—made it possible for the Security Council to move vigorously in 1950 against the Communist invaders of South Korea. Force of public opinion rather than force of arms brought about British, French and Israeli compliance with General Assembly appeals to withdraw from the Suez region in 1956. But nothing could prevail on the Soviet Union that same autumn to withdraw from Hungary.

Any number of proposals have been made to revivify the Security Council by eliminating or modifying the veto power. A related question concerns voting in the General Assembly, where the smallest and weakest country casts a ballot that counts just as much as the ballot cast by the largest and strongest country. To even things up a bit, weighting of votes according to population, gross national product or some other standard has been proposed.

Amendment Difficult

Most plans for voting reforms would require amendment of the Charter. And there's the rub! Amendments to the Charter have to be approved and ratified by two-thirds of the members of the United Nations, including all five permanent members of the Security Council. In other words, the veto applies. Soviet Premier Khrushchev said as recently as June 5 that Russia was not interested in changing the Charter, least of all the number of Communist countries more nearly approached the number of capitalist countries.

Existence of the veto power accounts for a tendency to seek machinery outside the United Nations to enforce vital international agreements. Back in 1946 the United States proposed a plan for an independent international Atomic Development Authority in which there would be "no veto to protect those who violate their solemn agreements not to develop or use atomic energy for destructive purposes." The Western powers now are proposing a veto-free International Disarmament Organization to control application of the disarmament agreement they are trying to negotiate at Geneva, and they favor similar means of policing a nuclear test ban. The Soviets say they would support an international police force to do police duty in the completely disarmed world they propose, but only a police force subject to the Security Council, where the veto operates.

Placebos Show New Principle Of Drug Action

Washington (Science Service)—Placebos—inactive pills with no power except that of suggestion—are far more effective in giving relief from pain when stress is present than when the pain is induced experimentally. The same is true of certain active drugs, they are more effective in relieving pain when psychological stress is present.

A Harvard Medical School professor, Dr. Henry K. Beecher of the department of anesthesia, Massachusetts General hospital, Boston, said in the journal Science published here that "unsuspected ties between mind and body" are revealed in this new idea.

The new principle is this: Certain drugs are effective in relieving internal pain only if the psychological state of the person is anxious or stressful.

Apparently the stronger the psychological state, the more effective the drugs, Dr. Beecher said. "Similarly, certain common symptoms, pain for example, appear to emerge only if an essential psychological state (anxiety, stress) is present. Physiological derangement (stimulation of pain endings) is not enough."

Two Concepts

Dr. Beecher said that two general concepts grow out of this observation. Not only does the effectiveness of placebos increase with increased stress, but the effectiveness of certain active drugs does also.

Real pain, or pain of pathological origin, produces more anxiety, or stress, than does experimentally contrived pain.

Placebos have long been used by physicians to pacify their patients when no active drug was needed. More recently they have been used as controls in experiments to determine the value of medicinal substances.

SOC Trip to Lake Planned

Ashland—Southern Oregon college will again provide planned recreation for its summer session students and any interested townspeople when the SOC bus leaves Ashland at 7 a.m. July 16 for a day at Lake of the Woods.

The student affairs office at the college is taking reservations until Friday noon.

The travelers are urged to pack picnic lunches and participate in swimming, boating and hiking opportunities at the lake. However, lunches may be bought at the lodge. The bus will return at 4 p.m.

Other events coming up which are also open to the public are a trip to the Oregon Caves, July 23; Dr. Arthur Taylors' trip to historical Fort Jones and Yreka, Calif., July 30; and a visit to Crater lake Aug. 6.

State Fisheries Director Named

Portland (UPI)—The Oregon Fish Commission Wednesday named Robert W. Schoning as new director of fisheries for Oregon.

Schoning, assistant director of fisheries, succeeds Albert M. Day, who is resigning.

Schoning has been with the commission for 13 years. He has served as an aquatic biologist, project leader for the Columbia River Investigation, Assistant Director and Director of Research, and assistant director of fisheries.

Rockefeller Sees Needs for Lower Level Leadership

Washington (UPI)—New York Republican Gov. Nelson A. Rockefeller believes the public does not realize how many high policy determinations are made by subordinates before the President is consulted.

Rockefeller told a special Senate subcommittee studying national policy machinery that decision-making on important domestic and international problems would improve if there were "strong presidential leadership" reaching to the lower planning levels.

The GOP governor, a special presidential assistant in 1955 and a rebel critic of the Eisenhower administration, gave his views at a closed session of the committee July 1. Chairman Henry M. Jackson (D-Wash.) revealed the testimony.

Process Criticized

Rockefeller criticized the "trickle up" process of policy making, going from planning boards to the national security council and thence finally to the President.

Rockefeller, a veteran of many NSC planning board meetings where U.S. policy is born, said "The public does not recognize the degree to which the planning board really does 95 per cent of the work, and it is not very often that a paper (containing policy recommendations) is changed by the security council (itself)."

"So the real work," Rockefeller said, "is done in the planning board on these position papers and... very few papers are substantially changed."

Usefulness Impaired

Rockefeller said he felt "very strongly" that issues should be put to the President so that he could see the clear-cut alternatives before making the final decision on vital domestic and foreign issues.

He said his proposal for a first secretary to rank above cabinet level and act as the President's right hand would give the planning board and the cabinet guidance on White House policy while relieving the President of the burden of many routine policy decisions.

Important Need Seen

Rockefeller said "There is an important need for cabinet officers and their deputies to have somebody to whom they can go in the White House to get policy guidance, and who will participate with them in the planning and thinking for the future..."

He said that when he was undersecretary of health, education and welfare, "I wanted to sit down and talk with somebody in the White House as to what national policy was on (federal aid to education)."

He said "There was not

anybody there who was responsible for that except the bureau of the budget. Of course, their enthusiasm is less than complete for any program which was going to involve more money."

Smithsonian Asks For 'Fallen Stars'

Washington (Science Service)—A call for fallen "stars," meteors that have survived their passage through the earth's atmosphere, has been issued by the Smithsonian Institution here.

The meteorites are badly needed for a variety of scientific research problems, since these "rocks from space" are the only samples available on earth of extra-terrestrial material.

The Smithsonian has agreed to serve as a central agency for a continent-wide collecting program. It will investigate all reported falls, encourage active search for meteorites, inform interested scientists when new material is available, distribute samples for research and keep accurate records.

Any information concerning recent meteorite falls should be sent to Dr. F. L. Whipple, director of the Smithsonian Institution Astrophysical Observatory, Cambridge, Mass., or E. P. Henderson at the Smithsonian's National Museum here.

It is hoped the new program will increase the number of meteorite falls available for research from one per year to five or more falls per year.



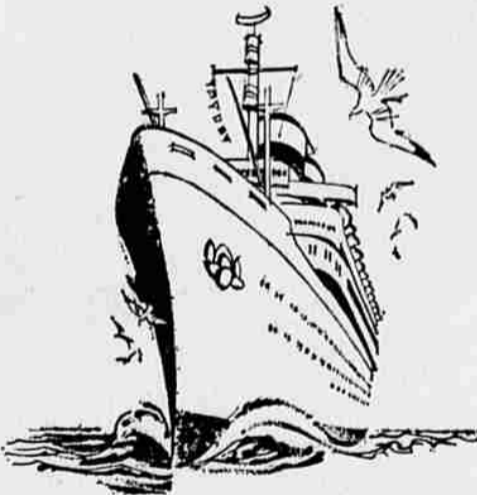
HELP YOURSELF—A strong supporter of Sen. John Kennedy is surrounded by a huge stock of Kennedy posters at the Sports Arena, scene of the Democratic National Convention, in Los Angeles. (UPI Telephoto)

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