precincts, the other on a county-by-county tally of the whole vote—essentially a random sampling method.

The third major network, ABC, working in cooperation with the Burroughs Corportion, C-E-I-R Inc., and Oliver Quayle & Company, has plans at least as ambitious as those of NBC and CBS.

Special Watch on "Key" States

Using a B-5000, Burroughs' newest computer, ABC plans to project the Presidential results in terms of both the popular and electoral vote, keeping a special watch on "key" states. They also plan to follow "key" races for Senator and Governor, and to do a running analysis of various economic, occupational, racial and religious "blocks."

ABC plans to do polling right up through election day itself, in order to have as accurate a picture as possible of what is going on. All three networks plan to use great caution in announcing any projected results.

The wire services have no plans to make any projections, either before, during or after the election, but will carry the results of the networks' projections, along with the actual "raw vote" tally.

The news media are not the only ones planning to use electronic data processing equipment in this election. The politicians will be taking advantage of modern scientific developments, too.

Both the Republicans and Democrats use information-retrieval systems to keep tabs on the party, and Senator Goldwater's use of a "memory machine" has been well publicized.

Neither the "electronic card file" nor the "memory machine" is a computer, however. Both are simply information storage and indexing devices, and do not perform any mathematical manipulations.

The electronic vote-tabulating machines which will report the number of votes as the returns come in on election night are not computers either. They are simply large, high-speed "counters." A computer is both a counting *and* calculating device, though it can be used separately for either purpose. In addition it serves as an information storage device.

What effect these electronic devices will have on this and future elections is yet to be seen. The day of computer-dominated politics is still far in the future, but may yet become a reality. Writers of popular fiction have already begun to speculate on the possibility. But for the moment, it is still a human's game.

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INVENTION

Patents of the Week

A special lollipop, a toothbrush substitute, that contains both acid and sweet substances may be the answer to the problem of tooth decay—By Ann Ewing

➤ IF YOU ARE TIRED of your toothbrush, try a new kind of lollipop.

That is the suggestion contained in a patent issued by the U.S. Patent Office.

However, this special lollipop that might reduce tooth decay is not yet on the market. Whether it ever will be or not cannot be told because Lever Brothers Company, New York, will not say.

The lollipop would contain sweet and weak acid substances in combination. Studies by other scientists, including those at the Government's National Institute of Dental Health, Bethesda, Md., have shown that sugar increases the chances of dental decay. Other studies have indicated that acid also increases dental decay.

Both acid and sugar, on the other hand, increase the amount of saliva, and salivation has been found to reduce tooth decay. The two have been combined in a hard tablet that would take about five minutes to dissolve in the mouth.

Such a dental tablet was awarded patent 3,151,028, rights to which were assigned to Lever Brothers Company.

The tablet to remove food debris was developed by Donald Ian Hay, Bedford, England; Cornelius Schram, Pavenham, England; and Brian James Wagg, Sharnbrook, England.

They suggest that salt, which also increases salivation, could be added to the sugar and weak acid in the tablet or lollipop.

Satellite Instrument Protector

A method of foaming plastics while a satellite or rocket is returning through the earth's atmosphere in order to protect and support the instrument payload when landing on water earned patent 3,150,387.

Frank M. Ballentine Jr. and the late George F. Look of Hampton, Va., developed the foam generator, which was used on a Cajun one-stage rocket fired in April, 1961. In-flight foaming, as reported in the patent, has been replaced by other methods, Mr. Ballentine said, but it could be developed further.

Alloy of an Alloy

A process of making an alloy of an alloy, now in the research stage, was granted patent 3,150,443. Rights were assigned to E. I. du Pont de Nemours and Company, Wilmington, Del., by Guy B. Alexander and Paul C. Yates of Brandywine Hundred, Del., and William H. Pasfield, Sayville, N.Y.

Thoria-dispersed nickel in powder form, which is an alloy, is combined with other metals to form a double alloy having improved high-temperature characteristics and easy workability.

'Fooling' a Missile

The infrared radiation that jet aircraft spew behind them is imitated in a method for "fooling" a missile, thereby changing its course from the intended target, that was awarded patent 3,150,848.

Most infrared detectors are made of lead sulfide, telluride, selenide or indium stibnide with germanium filters. Samuel E. Lager of Somis, Calif., has found that a mixture of a pyrophoric material, an oxidizer and an inhibitor such as polyglycol will, after burning, emit infrared radiation at just the wavelengths at which these detectors are most sensitive.

A jet plane leaving a series of these decoy targets in its wake could thus "fool" a homing missile. Mr. Lager assigned patent rights to the Government through the U.S. Navy.

Other Patents of Interest

A rocket engine using liquid fuel in which the amount of thrust can be varied as needed. Frederick R. Hickerson of Newton, N.J., assigned rights to patent 3,150,485 to the Government through the U.S. Navy.

A power-operated hair brush that can be disassembled for cleaning. William D. Taylor of Wilmington, Del., and Le Roy Crookes of West Chester, Pa., assigned rights to patent 3,150,393 to Ronson Corporation, Woodbridge, N.J.

A series of chemical compounds useful as hypnotic agents and in the treatment of pre-menstrual tension. Albert Bowers and John Edwards, Mexico City, assigned rights to patent 3,151,132 to Syntex Corporation.

Two methods of using the gas called a plasma to accelerate space vehicles after they are above most of the earth's atmosphere. The Aerospace Corporation, Los Angeles, Calif., was assigned rights to patent 3,150,483. General Electric Company was given rights to patent 3,151,259.

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TECHNOLOGY

Constant-Temperature Measurement Lab Opens

➤ THE DOORS to a new constant-temperature laboratory, where machines capable of measuring a few millionths of an inch are to be built, have been opened.

The laboratory will be kept at a near-perfect 68 degrees Fahrenheit. This is done in part by allowing air to enter the laboratory at floor level and taking it out at ceiling height, rather than the conventional ceiling-to-floor pattern. Moore Special Tool Company, Inc., Bridgeport, Conn., built the laboratory.

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TECHNOLOGY

Glass Still Produces High-Purity Water

➤ AN ALL-GLASS still has been developed at the Corning Glass Works, Corning, N.Y., to produce high-purity water at the rate of ten liters per hour.

Weighing 95 pounds when operating, the still is contained in a rust-proof aluminum cabinet. All pieces of equipment with which the water comes into contact are electrically inert and corrosion resistant.

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