

## HOSPITAL CONSTRUCTION

### Hill-Burton on the block

The principal link between the nation's health facilities and Federal money is the Hill-Burton Program established in 1946. It authorizes Federal grants to assist states and communities in constructing needed hospital and public health centers.

**Hill-Burton** has a 23-year record of accomplishment and service, increasing hospital and long-term care facilities at the rate of about 25,000 beds a year. It has spent \$3 billion in direct grants while stimulating a \$7-billion investment in matching funds by the communities. Nevertheless, Hill-Burton is under attack.

Critics of the Hill-Burton Program charge it with failing to keep pace with growing and changing needs in types of medical services and facilities, and further, with itself adding to the patient's health expense.

Perhaps more significantly, the program is regarded by many legislators and by the Administration as outdated because of the inflexibility inherent in the direct grant approach.

**A number** of bills have been submitted to Congress this year proposing alternatives to Hill-Burton, or radical modifications which would have profound effects should they become law. The proposals offer a wide range of options, from dropping the program altogether to various combinations of continued direct grants, Federal loan guarantees and interest subsidies.

The Nixon Administration itself has proposed a "radical redirection" in aid to health facility construction and modernization. Health, Education and Welfare Secretary Robert Finch has recommended cessation of the grant program for new hospital construction in favor of a \$500-million-a-year guaranteed loan program for modernizing existing hospitals and \$150 million a year in block grants for expansion of such non-hospital facilities as diagnostic and treatment clinics, nursing homes, outpatient care clinics and community health centers. The new direction represents a shift from the Hill-Burton emphasis on new hospital construction to a broader attack on the complexities of modern-day health delivery.

**In his** recommendations, made before a House Commerce subcommittee, Finch said the Administration plan would stress two new priorities: first, the "modernization or replacement of existing and obsolete acute care facilities in the hospitals," and second, "expansion of other kinds of medical facilities which can reduce the pressure on hospitals and thus help curb skyrocketing medical costs."

Finch argued for the substitution of a loan system for the Hill-Burton grants. "It is obvious," Finch declared, "that a program of Federal grants cannot meet a backlog of such proportions." He deplored the fragmentation of Federal efforts which result in wasteful duplications and adequate local involvement in the planning of health facilities.

**Congressman** Richard Ottinger (D-N.Y.) proposes a more radical departure in methods of Government aid. "Only through a wholesale revision in the chaotic, inadequate and expensive Federal spending programs can this nation avert a major health crisis," the Congressman warns. Saying that Hill-Burton "should be allowed to die," in its place he calls for a "temporary flexible program of direct Federal aid to medical facilities designed to meet critical situations and to give experts

## ASTRONOMY

### Pulsars speedup puzzles theorists

The observation is clear and confirmed. The pulsating radio source designated 0833-45, believed to be a remnant of the exploding supernova in Vela 10,000 years ago, increased its rate of rotation for one week in late February, then resumed its former rate of slowdown.

The slowing of the rotation of the neutron star, the generally accepted theory of the source of pulsars (SN: 12/14, p. 592), is in accord with theory. The speedup is not.

A neutron star contains most of the matter of a normal star condensed into a very small volume and is extremely dense, estimated to weigh  $4 \times 10^{15}$  grams per cubic centimeter.

**Although** the observation is clear, the explanation is not. Theoretical astronomers' reactions to the news ranged from "surprising" and "this may mess up a lot of theories" to suggestions that the change must result from a small difference in the mass of the star or to an orbital change as the pulsar circles another star.

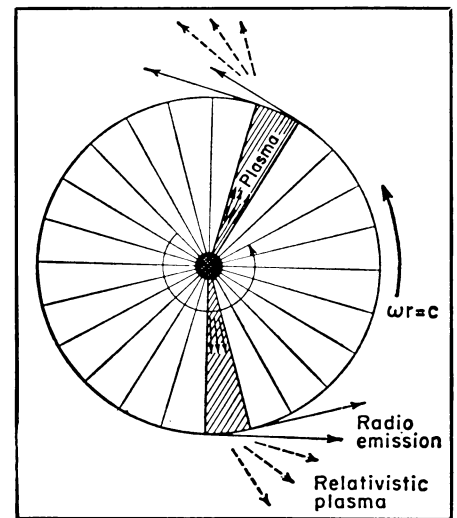
One group believes the change was most likely the result of an internal rearrangement of a cooling neutron star. But exactly how this occurs is purely speculative since so little is known about the interactions at highly packed densities of the protons and neutrons forming the star.

But despite the decrease in pulse frequency, the pulse shape, believed a function of the star's magnetic field, did not change. And, since "the decrease was independent of the pulsar mechanism and did not involve any reorganization of the magnetic field," Dr. Peter M. Goldreich of California Insti-

a chance to work out and test new concepts." His proposals have found considerable support among health groups and over 100 congressmen and senators. But last year, first time out, it failed to survive delaying action of conservatives on the House floor.

The New York Democrat can be counted on to have a good deal to say about what kind of program comes out of Congress this year. He is a member of the House Commerce Committee, before which Hill-Burton is expected to receive a more thorough evaluation than it has ever had. The Administration bill, as well as a number of others, will all end up before his committee.

Hill-Burton, now without its fiery leader from Alabama, Senator Lister Hill, who retired last year, will be given a vigorous challenge. And, for the first time in 23 years, its survival is problematical.



Nature/Sky and Telescope

*Dr. Gold's pulsar model ejects plasma.*

tute if Technology concludes the most simple explanation for the phenomenon is an internal readjustment of mass, possibly in a lattice form, much as a solid when cooled will crystallize.

Dr. Thomas Gold of Cornell University supports the internal arrangement hypothesis. Only a tiny amount of mass change, he says, would be required to account for the decreased period.

Dr. Jeremiah P. Ostriker of Princeton University Observatory is another who believes a possible explanation for the change in period is a small contraction of the neutron star's mass. As to why it should contract, Dr. Ostriker explains that a neutron star "is not a completely dead object, because then there would be no radiation emitted." Since it is cooling, some kind of crystallization is not out of the question.

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