negotiated case by case, taking into account the varying bookkeeping procedures that make an expense like faculty salaries a direct cost at one institution and an indirect expense at another.

One way to meet Sen. Mundt's concern that the Federal pie be shared with small colleges may lie not in significantly altering the contract-grant system but in beefing up the Federal program of institutional grants—money allocated to a college or university on a no-strings-attached basis, rather than to an individual scientist (SN: 3/8, p. 231). Rep. George P. Miller (D-Calif.) and Sen. Harris (SN: 3/29, p. 306), have introduced bills to marshall support for science education on a broad scale, through institutional grants. Under both bills, distribution of up to $400 million a year would be through the National Science Foundation.

The National Science Board has endorsed this approach, contending that it simply reflects the way grant money is spent by universities anyway. ◇

MEDICAL SERENDIPITY

Amantadine for Parkinsonism

Amantadine chloride has been used as a preventive of Asian flu. It is now being tried with some success by a group of Harvard Medical School physicians to treat Parkinson's disease, or shaking palsy.

The idea started about a year ago, when a 58-year-old woman who had been taking the drug to prevent the flu experienced a remarkable remission in her Parkinson's symptoms: rigidity, tremors and lack of ability to move about. After six weeks she stopped the dosage—and the symptoms promptly returned.

Dr. Robert S. Schwab and three coworkers report preliminary tests with 163 patients. Sixty-six percent of the group showed improvement of their symptoms while receiving the drug during a six-month period.

Amantadine chloride is now available to physicians specifically to treat Asian flu. If they use it to treat symptoms of Parkinson's disease they must have the informed consent of the patient, although this does not have to be in writing.

Nine of the 163 patients dropped the drug to begin treatment with L-dopa, another drug that has had considerable publicity for its experimental use on Parkinson patients. All nine had been helped by the amantadine, and also were helped by L-dopa. The researchers say that one of the possible applications of amantadine could be as an indicator of subsequent benefit from L-dopa.

"Since amantadine does not require hospitalization or the elaborate time-consuming build-up in dosage necessary with L-dopa," they explain, "it is a substitute until the latter is available to all patients."

Just how amantadine lessens the symptoms of Parkinson's disease is not clear from its pharmacology. It is a stimulant, and the Harvard group found that a large percentage of improvement was reported as an increase in alertness, activity, interest and improved mood.

Twenty-two percent of the patients showed some side effects such as jitteriness, insomnia, abdominal uneasiness, loss of appetite, slight dizziness, and, in one patient, a feeling of depression. They disappeared promptly within 36 hours after the therapy was stopped, however. The investigators suggest cutting down on other medication being given at the same time.

One of the most promising patients was a 67-year-old man who had been totally invalided after 21 years of progressive Parkinson's disease. Within 24 hours of taking the amantadine treatment he was able to move around for the first time in two years, partially dress himself, complete his meals and get in and out of bed alone. The improvement persisted for three weeks without complications, but side effects then made it necessary to reduce the dosage of other medications he had been taking. He remained very much improved.

Working with Dr. Schwab were Drs. Albert C. England Jr., David C. Pozkanzer and Robert R. Young. All of them are in the department of neurology at Harvard and in the Parkinson's disease project and neurology service of Massachusetts General Hospital in Boston. They reported their work in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

POST OFFICE

Streamlining moves ahead

Despite increased attention to research and mechanization in recent years, the U.S. Post Office Department still employs some mail handling procedures dating back 100 years. Hindered by old-fashioned practices, political appointments and bureaucratic procedures the department wallows in a $1.2 billion deficit.

In an effort to modernize the system, President Johnson's Postmaster General Lawrence F. O'Brien proposed to transform the department into a corporation, along the same lines as the Tennessee Valley Authority, with the power to finance its own operation by selling interest-bearing bonds. Three days after O'Brien's recommendation, President Johnson appointed a commission headed by Frederick R. Kappel, former chairman of the board of the American Telephone and Telegraph Corp., to evaluate the idea. In June 1968, the commission made its report, recommending that the department be set up as a corporation and that its research effort be intensified (SN: 9/7, p. 245).

Last week, the plan came a step closer to realization when the Nixon Administration sent to Congress its bill to reorganize the Post Office along the lines recommended by the Kappel commission.

In fiscal year 1969, the postal budget for research and development came to $35.6 million out of a total budget of $7.5 billion. For the year that starts July 1, the corresponding figures are $51.8 million and $7.8 billion or about a 45 percent jump in RD&E spending.

But when Paul G. Hendrickson, director of postal operations, research and engineering, testified at a hearing before a House subcommittee in March, he said: "Only $37.6 million of the $51.8 million is to be used for research and development activities. This is less than one-half of one percent of total estimated postal obligations for that year. The National Science Foundation indicates that private investment in research and development by firms with 5,000 or more employes approximated 2.1 percent of net sales in fiscal year 1965. Accordingly, the relative emphasis on research and development recommended by the department for fiscal year 1970 is less than one-fourth the rate industry found necessary five years previously."

There are numerous projects, such as electric vehicles for mail delivery, smaller and cheaper optical character readers for smaller cities and voice recognition of zip code numbers by machines for sorting purposes, that are still in the R&D stage and whose completion will be determined by the funds available for them.

The idea of a separate postal corporation does not meet with universal approval. In Congress, the chief rival to the Nixon Administration bill is one submitted by Rep. Thaddeus J. Dulski (D-N.Y.), chairman of the House Committee on Post Office and Civil Service in January. Presently at the hearing stage, it follows the recommendations of the Kappel commission except for the all important point of making the department a corporation.

Dulski believes that the Post Office is too intertwined in governmental machinery to now set out on its own, unlike TVA, which started out as a brand-new organization. ◇