tions without patents would not have been considered worth the money spent on research. As was said earlier in this article, to have a headstart on new processes or products, even if competitors are not barred from imitation, or to catch up with competitors who are leading in the race for new technology, may be sufficiently desirable in a world of oligopolistic competition to bring forth all the inventive efforts that are now attributed to the patent incentive.

The absence of any empirical evidence for either the claim or its denial that the patent system is an effective promoter of inventive research-and thus of the production of socially new technological knowledge-is most frustrating. The doubting Thomases are usually timid and reserved lest they invite the wrath of the faithful. [A recent denial of the claim, by Seymour Melman, is quite exceptional in its directness (5).] Advocates of patent protection have for centuries propounded the faith in this institution, and their statements admit of not an iota of doubt. They may well have the truth—but faith alone, not evidence, supports it.

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Science in the News

Kennedy's Education Program: Notes on the Political Background

The Administration's education program is beginning to emerge from the House and Senate committees, and it appears that the bills which reach the floor of each house will be in substantially the form Kennedy has requested: grants, in the neighborhood of \$1 billion a year, to the states for public schools; loans on about the same scale for universities, both public and private; and an expansion of the federal loan program for students. Kennedy also requested a scholarship program, which may not appear in the committee versions, although, if outright scholarships are not included, an alternative limiting the amount of money students entering low-paying professions will have to repay to the government is likely to be included in the loan program.

The different parts of the program vary widely in their prospects. Expansion of the established loan programs for colleges and college students can be taken for granted. The outlook for a scholarship program or the alternative of generous forgiveness provisions in the loan program is less clear. The proposals have never been fully discussed before in Congress, and few members outside the committees concerned with education have committed themselves to any particular approach. Aid to public schools, including teachers' salaries as well as construction, is another matter: it has been widely debated for years, and remains by far the most controversial item.

The handling of the education program, particularly the issue of teachers' salaries, is likely to prove the most severe test to date of the Administration's relations with Congress. Kennedy has yet to be beaten on an important issue, but he also has yet to commit himself on an issue on which the outlook, based on votes last year and on the known positions of new members, looked so dismal.

On this basis, the nonpartisan Congressional Quarterly estimated at the beginning of the session that any school bill, even one excluding teachers' salaries, faced an apparent deficit of 27 votes in the House of Representatives. By this standard, the outlook for a bill including money teachers' salaries would be virtually hopeless, although since the teachers' salary issue has never reached a vote in the House it is hard to estimate the apparent vote deficit. But Congressional Quarterly attempted only to measure what can be fairly precisely measured: the known inclinations of the members of the House. The difference between certain defeat and at least a fair chance for victory is the power of the Presidency, which Kennedy has never yet fully used.

The Kennedy forces pushed through the minimum wage bill last week by a margin of 35 votes in the House, although in the form Kennedy proposed the bill faced, by Congressional Quarterly's estimate, an apparent deficit of 54 votes. The margin of victory, though generally regarded as surprisingly large, was far from comfortable: the margin was wide only when compared with the five-vote margin by which the Kennedy forces won the Rules Committee dispute. The vote was 231 to 196, and a shift of 18 members out of the 427 who voted would have defeated the bill.

Political Tactics

The factors that made a fairly narrow Administration victory possible on minimum wages would not be enough to push across a school bill with money for teachers' salaries, but they will provide a basis for the effort the Administration needs to make to have a chance. Both bills are handled by the same House committee, Education and Labor. Last year the chairman of the committee was Graham Barden, of North Carolina, one of the most conservative of the Southerners. Barden retired last year, and Adam Clayton Powell, of Harlem, succeeded by the usual seniority rule. The chairman has great powers to delay, if not to kill, legislation he disapproves. Powell has a good claim to being the most unpopular man in the House, but he is a liberal, and whatever his fellow liberals may think of him personally, his replacement of Barden as chairman of the committee eliminated one of the obstacles for the Administration's program.

A second obstacle was eliminated with the change in the Rules Committee, to which new members were added to give the Administration a majority. Last year the liberals had to fight to get their bills through Barden's committee, and then fight again to get them through the Rules Committee. This year the path is clear. The minimum wage bill, for example, was cleared by the Rules Committee last year only after the committee had assurance that the House conference representatives would refuse to accept any compromise with the more liberal Senate version of the bill. The House substituted a limited wage bill for the bill that had come out of committee by almost the same vote as it did this year. The House conferees, led by Barden, refused to make any concessions to the Senate conferees, led by Kennedy, and the conference collapsed. This year, the House conferees, now led by Powell, quickly agreed to a bill very close to what the Senate (and the Administration) had proposed. When the conference report came before the House, a number of members who did not mind voting for a substitute minimum wage bill did not care to vote against the only minimum wage bill before them, and the Administration won its victory.

Conference Report

This may indeed set the pattern for the school aid bill, with the Administration losing in the House at first, when the members are able to vote on teachers' salaries as a distinct issue, and winning when the House is faced with a conference report including teachers' salaries, and the members have to vote for or against aid to education in general. On education, as on its program in general, the Administration has virtually no worries about the Senate, where a liberal coalition that includes about a third of the Republicans plus most of the Democrats has been regularly giving the President margins of about 2 to 1.

But the strategy of hoping for a victory on the conference report to reverse a preliminary defeat in the House will normally work only if the vote in the House has been fairly close. This was the case with the minimum wage bill: the House adopted a substitute for the

Administration bill by only a dozen votes out of more than 420. The Senate supported the Administration by about 2 to 1. Given the close division in the House and the wide margin in the Senate, it was natural that the compromise version would be closer to the Senate's version. If the earlier vote in the House had been less close, the liberals would still have controlled the conference and could have given in just as much to the Senate; but in addition to having to change more votes to get the conference report approved they would have had to counter the resentment of House members who, while privately favoring the Senate version, felt the terms of compromise were degrading to the House. Nevertheless, the nature of Congressional procedure, combined with the liberals' control of the Rules and Conference committees, gives the liberals important tactical advantages they lacked last vear.

Power of the Presidency

The most important factor, though, is the power of Presidency. Control of procedural machinery is an asset to the liberals, but the main value of this newly won control is not so much in what the liberals can do with it as in what the conservatives can no longer do with it. The great power of procedural devices lies in their usefulness to obstruct, a power the liberals, who are normally working for the passage of legislation, have little occasion to use. (This is what gives rise to the legends of the wily conservatives frustrating the liberals through their superior understanding of the niceties of parliamentary procedure. The liberals are not less wily; they merely have less occasion to use procedural devices, whose principal value is to keep things from being done.)

The force of the Presidency, too, can be important in a negative way, for there is no greater procedural obstruction to the passage of legislation than the presidential veto requiring a two-thirds majority in each house for a bill to become law over the president's opposition. Senator Dirksen, the minority leader, was a member of the Senate-House conference committee that produced the final minimum wage bill. In the closing moments of the debate on the conference report he turned to Pat McNamara, of Michigan, chairman of the Senate conferees. "I shall take no further time," said Dirksen, "except to say to my congenial

chairman: perhaps I ought to congratulate you for getting [the liberal version of] the bill before us this year. I did my best to stop it before, as the Senator knows. I did not succeed. I always had one hope before, because, having made the best fight of which I was capable, I could then say, 'Well, if we can only get one third plus one, maybe we are still safe.' I cannot say it any more. . . ."

Here again, the liberals' control of procedure, at the White House as well as on the Congressional level, is valuable in the negative sense of keeping procedural obstruction from coming into play. But here, more than in the House, formal control carries with it a great deal of power, which Kennedy, despite a good deal of talk about his vigorous handling of the office, has never yet tried to exert to the full.

As a number of observers have been pointing out lately, Kennedy has yet to use his position to make a direct appeal to the public for support on specific issues, explaining just what he wants Congress to do and why he thinks the country should be behind him. Two things limit the use of this power: the President cannot use it too often without both dissipating its impact and provoking Congressional resentment, and he must be wary of using it on an issue where he is likely to lose, despite its use, for this, too, would lessen its effectiveness the next time it is needed.

On minimum wages, Kennedy did not choose to make such a fight. He accepted the exclusion from the bill of several hundred thousand workers who most need coverage. None of the Administration's supporters attempted to defend this on any ground save that of expediency. The President got the main thing he wanted: broad expansion of the concept used to define what businesses fall under the Constitution's interstate commerce clause, which provides the authority for minimum wage legislation. He then accepted exemption of some important groups in order to get the votes needed to push the bill across, presumably with the intention of trying to get the exemptions repealed next year.

The question on school aid is whether he is willing to settle for the principle of federal aid this year, and hope to expand it in the future, or whether he will fight for large-scale aid this year by making a strong appeal for public support, with the pressure this will bring on reluctant Congressmen to go along with the Administration.