

tists to ask questions of their Russian or Chinese colleagues on similar issues?

Alongside these issues of principle, the *Science* report suggests a certain disconcerting arrogance. The quote "if they could get the Post Office to tear up all the copies entering the country" suggests that American scientists are not even to be trusted to read things that the State Department does not like, let alone make up their own minds as to how to deal with the material. If this is offensive to American scientists, the gratuitous assumptions as to the motivations of the Soviet scientists must be equally offensive. How can one expect growth of respect and amity between peoples on the basis of this approach?

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Langer states: "At the State Department no one takes the questionnaire too seriously . . ." and "the intervention of the State Department has probably made its effective utilization impossible." I am amazed at the apparent failure of everyone to see this clever communist propaganda trap. There are five vital questions whose answers will be known only to the "Soviet Peace Committee" and those above it in the Soviet hierarchy. (i) How many questionnaires were sent out? (ii) Who received them? (iii) How many recipients answered the questions? (iv) Who answered the questions? (v) How were the questions answered?

No matter how many questionnaires were received in this country, or elsewhere, and no matter how many were answered, or how they were answered, "The Soviet Peace Committee" can say that they sent the questionnaires to 10,000 scientists in the United States, that they received 9,000 replies and that 90 percent of their respondents were bitterly opposed to war in any form, nuclear warfare in particular, and that they were being obliged to work for such nefarious projects against their will. In short, the "Committee" can broadcast any story that happens to fill their purpose and no one can disprove it. Hordes of naive persons will accept the statements as factual, and the "intervention of the State Department" will have accomplished nothing!

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Additional Safety Measures for Electrophoresis Power Supplies

In addition to the safety precautions described by Spencer *et al.* [*Science* **152**, 1722 (1966)] there are two additional design features which can be built into electrophoresis power supplies to make them safer.

1) Full floating output. This requires an isolating transformer between the a-c input and the rectifier section of the power supply. The transformer forms a high insulation barrier between the ground and the output, so that if the experimenter accidentally touches a live output circuit, no current will flow even when the experimenter is grounded. The only way to receive a shock with a floating circuit is to touch both the positive lead and the negative lead simultaneously. Of course, if the transformer insulation should fail, the output circuit may become grounded, but this type of failure is much less likely than insulation failure in a lead wire or failure to connect separate grounding wires properly.

2) Both leads in the same cable. With this construction any insulation failure is most likely to occur between the two leads, burning out the power supply itself—an automatic fail-safe feature.

Power supplies built with these two safety features have been available commercially for years. It is surprising to me that more manufacturers have not adopted these principles.

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Miracles Beget Miracles

I could not agree more with the general tone of your editorial, "Pressure on basic research," (1 July, p. 11), but your statement that there have been no major miracles for two decades is hardly justifiable. It is rather that our society has become so blasé that major miracles are considered standard operating procedure. The totally unexpected wealth of hadrons and the equally unexpected existence of quasars are but two examples of major miracles, not to mention what is going on in the life sciences.

As to their usefulness, it might be argued that if there are no miracles in basic research, there will be no miracles in applied research. The laser and the

Mössbauer effect, just to mention a couple of applied research miracles from the last two decades, are solidly based on previous miracles in basic research. But to delineate the applied miracles of the future corresponding to today's basic miracles would be equivalent to have specified a ruby crystal with two mirrors in 1905.

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In What Year Did Newton Die?

Sir Isaac Newton died on 20 March 1727—of that there is no doubt. Indeed, all the books say so! I was therefore not a little surprised to observe, on a recent visit to Westminster Abbey, that the inscription at the base of the impressive monument to Newton gives the date of his death as: "XX Mar. MDCCXXVI" (20 March 1726). The explanation of this apparent discrepancy of 1 year, although well known to historians, was not previously known to me nor to most of my scientific acquaintances. The following, therefore, may be of interest to physicists and perhaps other scientists.

About a quarter century after Newton's death and nearly 170 years after Pope Gregory XIII introduced the new "Gregorian calendar," the English Parliament passed the "Calendar (New Style) Act of 1751." This Act not only adopted the Gregorian calendar, but it also provided that in England the first day of the new year would legally be advanced from the 25th of March to the 1st of January. Since the date of Newton's death, 20 March, fell within this period of approximately 3 months, the 25th anniversary of his death was updated, by the Act, from 1751 to 1752. Extrapolating backward in time, the year of his death then becomes 1727.

David Brewster, in *The Life of Sir Isaac Newton* (J. and J. Harper, New York, 1833), quotes in full the inscription at the base of Newton's monument in Westminster Abbey and takes the unpardonable liberty of changing the stonemason's "MDCCXXVI" to "MDCCXXVII," without so much as a footnote to explain that he was tampering with the truth merely to conform with the Act of 1751.

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