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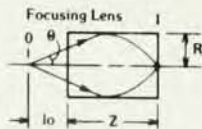
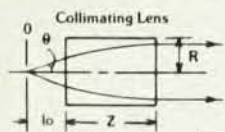
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case remains, as it is now, to our knowledge, unique.

IVAN C. DA CUNHA LIMA

Head, Space Engineering Department

Institute de Pesquisas Espaciais

6/10/80

São Paulo, Brazil

Electric car needed now

William Walsh's review of battery technology (June, page 34) was interesting, but I wonder how long we can wait for better batteries. I felt concerned enough about auto fuel and pollution problems to act early this year. The best electric car I was able to buy uses old technology in all areas, but it meets about 95% of my trip needs and over 60% of my mileage needs. It brings about energy conservation naturally. Its limited power and range cause me to avoid wasteful driving procedures. Its equivalent fuel economy, based on the first 1000 miles of use, is nearly 70 miles for each gallon of oil burned at the power plant. Its availability for short trips around town has raised the economy of my "big" car (a Honda Civic) to about 40 miles per gallon. My "fleet average" is about 58 miles per gallon.

There are many needs which this car will not meet, but it could probably replace about ten or twenty million of the cars in the US that are used primarily for local driving. Such a replacement would offer important fuel savings and a large improvement in urban air quality.

At present production rates, the tiny, fragmented electric car industry will take several hundred years to build ten million cars. The ailing automobile industry should move immediately to build the best cars it can make with the existing technology. It has the organization, the plants, the dealership and service facilities to move quickly. The way things are going in the Middle East we may not have time to wait for a better battery.

RICHARD C. RAYMOND

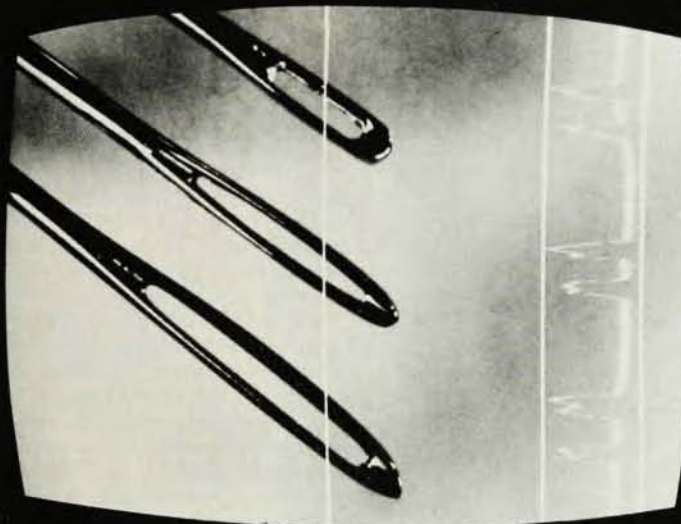
6/26/80

Santa Barbara, California

AUTHOR COMMENTS: Richard Raymond exhibits an initial euphoria common to electric-vehicle owners. It is sad that his enthusiasm will probably be dampened during the next few months as his electric vehicle becomes more sluggish and he realizes that the expensive battery pack needs replacement. Today's traction batteries last only about 12 months under normal driving conditions.

On the bright side, battery technology is experiencing a renaissance, and dramatically improved batteries and electric vehicles will be available to the public in a few short years. I look

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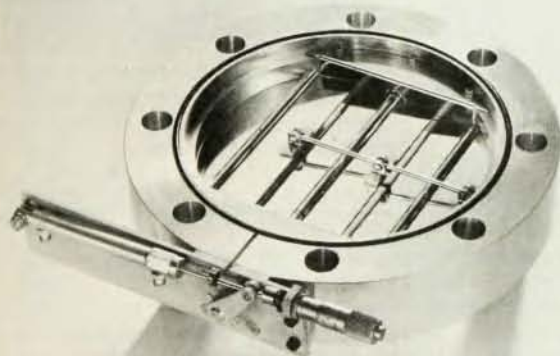
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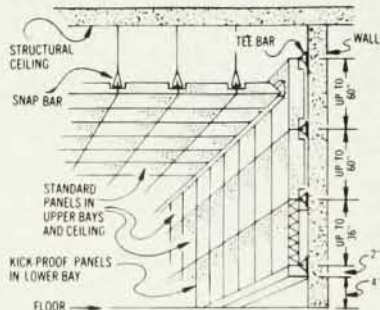
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forward to the time when battery technology advances to the point that a "happy ending" will be possible for Raymond and other electric-vehicle pioneers.

WILLIAM J. WALSH
Argonne National Laboratory
Argonne, Illinois

7/15/80

Oversight corrected

In my Guest Comment in June (page 9), I referred to work currently under way at the General Electric Research and Development Center on quasi-one-dimensional conductors and insulators. In listing the participants in that work, I inadvertently left out the name of a principal academic collaborator. Jill Bonner of the University of Rhode Island has been a highly valued co-worker in that effort and a co-author of ten papers with our staff members in that area. I want to take this opportunity to correct my oversight and recognize the important contributions Bonner has made to the program.

ROLAND W. SCHMITT
General Electric Company
Schenectady, New York

7/16/80

Correction

May 1980, page 72—Chaim L. Pekeris left the Institute for Advanced Study in Princeton to become head of the department of applied mathematics at the Weizman Institute of Science, Rehovot, Israel. In 1973 he was appointed Distinguished Institute Professor.

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