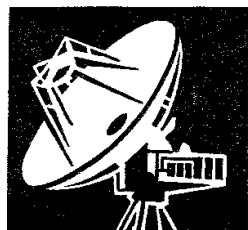


RESEARCH LAB REPORTER



PRODUCED BY RESEARCH LABORATORIES, 59 LITTLE COLLINS STREET, MELBOURNE

'RESEARCH LAB. REPORTER'

As another year is coming to an end it can be said, without contradiction, that 1973 has been the most memorable year in the history of the Research Laboratories. Our Golden Jubilee celebrations left nothing to be desired and their outstanding success was due to the contributions made, in some way, by each and every member of the Labs.

Late in 1974 will see the first phase of our move to the Monash area and a temporary further widening in the physical separation of our activities. Because of this intended move it is hoped that the Lab. Reporter will play a more important role in keeping the city-based folk in touch with their "urban" counterparts and vice versa.

I recall an article submitted for the Lab. Reporter by Albert Seyler way back in 1966 and it seems appropriate that the following extract be quoted at this particular time - "lets tell each other of our pleasant, funny, serious, important and unimportant experiences as they will happen in any family. Don't wait for your local "reporter" to find out when the time comes for him to pass on the bits of information for the next issue. He should have received these as and when things happened and/or were observed. Life does not happen in two-monthly intervals but keeps on going all the time and so should our Reporter".

From the many contributions I receive together with requests for copies from officers either retired or moved to other areas of the Service I have the feeling that the Lab. Reporter is fulfilling its intended role of keeping people informed about the doings of the various members of the staff one would not otherwise hear about. I hope I am right. Speaking for myself after 29 years in Engineering Divisions both in Victoria and at Headquarters I have found my last 6½ years the most rewarding of all. This is the reason that brought me back so quickly after only two months with National Telecommunication Plan.

Next year the Lab. Reporter will take on a new look and I look forward to receiving your views and news. Thank you all for the interest you have shown in your journal and I wish you and your families the Season's Greetings and health and prosperity in 1974.

Ashley. Courney.
(Editor)

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Assignments Overseas

Otto Lobert, Radio Systems, visited Brussels, Stuttgart, Munich, Darmstadt, Stockholm, London, New York, Washington, Los Angeles and Tokyo on a pressure packed investigatory period from 31st August to 12th October. His time was spent in investigating the latest research and development trends of digital radio systems and attending the European Microwave Conference. Also he discussed with telecommunications authorities their attitudes towards the possible plans for the introduction of digital radio systems and he studied the facilities available and the methods adopted by a Swedish manufacturer to evaluate and channel basic research results on HF discharge phenomena into the design of high power HF aerials of the same general type as are in use at the booster station of Radio Australia near Darwin.

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Graeme Kidd, Guided Media, spent 5½ weeks visiting Belgium, Germany, France, the U.K. and Japan from 1st September to 10th October. The objectives of his visit were to study recent advances in the development and use of high capacity transmission media, in particular optical fibres and circular waveguides. Also he attended two international conferences on related topics; the "European Microwave Conference" in Brussels, Belgium and the "Optical Properties of Thin Films" conference held in Southampton, U.K.

Ian Macfarlane, Devices and Techniques, visited San Francisco, Detroit, New York, Dallas, Phoenix, Chicago, Toronto, Ottawa, Montreal, Philadelphia, Denver and San José during a rather hectic 5½ weeks from 9th September. Macca's trip was actually twofold; to visit a number of firms that are in the forefront of the world's manufacturers of solid state devices and to attend three conferences on topics of present and future relevance to the work of his section. He managed also to squeeze in visits to the Grand Canyon and Niagara Falls but here lies another story.

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Ed Sandbach, Applied Science and Lab. Services, undertook the longest visit when, as a member of the Australian Delegation, he spent almost seven exhausting weeks at the Plenipotentiary Conference of the I.T.U. held in Malaga, Torresmolinos, Spain from 14th September. Over 700 delegates from various countries attended this conference.

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Dick Slade, Chemistry and Metallurgy, visited New Zealand for 12 days early in October to attend the fifth annual conference of the Australasian Institute of Metal Finishing at Auckland and to participate in discussions at the New Zealand Post Office Headquarters, Wellington. Dick visited also the Telephone Exchange at Rotorua where the unusual conditions prevailing in the geothermal area necessitated the development of special corrosion protection methods. One other day was spent with Austral Standard Cable factory at Christchurch to look at local cable manufacturing processes and other installations.

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Albert Seyler, Advanced Techniques, has been given approval to accept a position as a consultant at the Bell Laboratories U.S.A. and Bell Northern Research, Canada. Albert is spending five months in the U.S.A. and three months in Canada. He will be working in areas of undoubted interest to the Department and in organisations where the resources are many times greater than those available to the Department. He will acquire knowledge in the fields of advanced techniques in telecommunications for which he is responsible and in which he is personally

participating in his position in the Labs. Much of this knowledge would not be otherwise available to us, for many months, or even years, from the release of published information in which, moreover, only successful investigations will be reported. This advanced knowledge will be of great value in the development of the Department's own research programme. Albert will also be availing himself of recreational leave and we can expect to see him back on deck late July 1974.

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In mid-November, Rollo Brett made a lightning visit to Geneva to attend the third meeting of the Provisional Committee of Management for the Quality Assurance Scheme for Electronic Components held between 11th-19th under the auspices of the International Electrotechnical Commission.

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Frank Arter, departed on 2nd December, headed for New Delhi to attend, as leader of the Australian delegation, the seventh Asia Electronics Conference and the third General Assembly of the Asia Electronics Union - of which Australian membership resides in the A.P.O. As the Australian leader, Frank was also Chairman of a special working group set up by the Conference to study problems relating to the establishment of electronics industries in the developing countries of Asia and Oceania. Contributions obtained from member countries were co-ordinated, within the A.P.O., into a report which was presented at the New Delhi Conference.

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GRAPEVINE GOSSIP

Joanne Hollins has returned to her secretarial post in the Applied Science and Lab. Services Branch after spending six glorious months overseas. She is as brown as a berry and tells me she managed to do quite a bit of swimming while she was away. Having just arrived home we have not had sufficient time to find out about her experiences in the various countries she visited. However she did mention that she didn't have the cheek to wear shorts whilst in Italy but we haven't got to the bottom of that story yet.

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Despite all the stories going around, we are assured that it was purely coincidental that Marj McDonald and Brian Lafferty went on furlough at the same time.

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Congratulations to David Mattiske, Switching and Signalling Branch, on the successful completion of his Master of Business Administration. David's thesis was titled "Administrative Processes" and he modestly informed me that he was awarded the Sir Alexander Fitzgerald prize of \$100. He resumes duty in the Labs. on the first working day of 1974.

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Also congratulations to Jack Steel, Line and Data Systems, who has received the great news that his Ph.D. will be conferred on 15th December. Jack's thesis was titled "Adaptive Block Coding Systems". He resumed duty in the Labs. in April of this year after L.W.O.P. from March 1970 whilst gainfully spending his time acquiring his Master degree in Engineering and then his Doctorate.

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To the Reen family this item is outdated but to most of us it is interesting to note that Jack's son, John junior, won the best actor award for his portrayal of Ham in the play "Noah" which in turn won the 1973 George Walton Trophy in the Catholic school's drama festival. Seems young John is following in Dad's footsteps!

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No names, no pack drill, but a certain A.D.G. is demonstrating a high degree of Applied Science to the game of 500 much to the amazement of several members of lunch time school of cardsharps. It helps considerably when you retain 2-3 cards more than the opposition.

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The "Hofbräuhaus" was again invaded on Monday 3rd December, this time to see that Phil "Silvers" Westbrook got away to a good retirement. Following a suitable rest from the luncheon, Phil was officially farewelled by his many friends and colleagues who gathered together in the Prototype Shop. As an honorary member of the 2nd Floor Block A elite "Birthday Club" we trust Phil will ensure that Mrs W. continues to send in those Champignon delicacies followed by the giant pavlovas.

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Staff Driver Charlie Bates has done it again! However on this occasion it was to his credit that his geography was O.K., he found Bernie Smith's residence without any trouble. But who likes to have someone banging on the front door at six o'clock on a sabbath morning when you don't expect a call until 6PM.

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John Hughes, Unguided Media, and his wife spent two enjoyable weeks in Los Angeles and Honolulu (that's the advantage of having a wife who works for an airline). John tells us that in Honolulu you can purchase a basic model Ford Mustang for \$3000 (on the road) with petrol at 38-43 cents per gallon. A large can of Fosters Export Aust. 30c. But one point he did strongly emphasize - don't get sick. John's visit to the Doctor cost \$35 and subsequently \$15 for tablets from the apothecary.

Another overseas traveller from Unguided Media is Ian Ridge who has returned recently from three months in New Zealand. Quite a lengthy honeymoon!

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We have at last discovered why Section Review Meetings from the Switching and Signalling Branch perform to packed audiences - its the delicious morning teas that are provided. Even Ian Macfarlane doesn't need to bring along his usual eight rounds of sandwiches.

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Ray Jepson, Lab. Instrumentation, returned from furlough towards the end of November after a most enjoyable journey, spent mostly in the Flinders Ranges. Whilst in South Australia he met many Post Office technical officers who will be long remembered for their tremendous hospitality. He was pleasantly suprised at their friendliness towards a C.O. walla. Much elbow bending was conducted but according to Ray he fared the best due probably to years of practice and the weakness of S.A. refreshments.

Ray arrived at Hawker in time for their annual gymkhana and also just in time to save the day by fixing the local P.A. system by using the microphone from his own radio transceiver - his reward being free victuals for the day. Incidentally his transceiver performed to expectation and he conversed successfully on over 20 occasions with Dick FitzSimons (VK3R2) even from some very remote locations. Despite some hair raising experiences over 60° angled narrow byways, he was extremely impressed with the flora and fauna and brought home about 45 kilograms of rocks including coral crystal and other interesting varieties of which he is unable to identify. He may have to call upon our retired lapidarists Ross Pitkethly and Vic McMaster for assistance.

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Eric Gray, Lab. Instrumentation, is returning to New Guinea again this year to put his expertise to work at the missionary headquarters. Rumour has it that Eric may endeavour to seek a temporary transfer to PNG Posts and Telegraphs and if successful will be sadly missed by the Labs.

Ray Proudlock is fast becoming a low power transmitter expert. During a recent VHF field day organised by the W.I.A. he was contacted by Ray Jepson over an airline distance of 56 kilometres with Ray using an antenna input power of 1.5 milliwatts. The total transmitter dc input power, modulator, etc. was 20 milliwatts - (almost something for nothing).

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Hospital Corner

At this time of writing the following people were on the hospital list. We sincerely hope as this issue is published that a marked improvement in health is quite evident by all concerned.

Boyd Rayment and family were involved in a very nasty car accident in November when their sedan was struck head on by another vehicle, which was airborne at the time, having previously collided with two other cars. Boyd suffered broken ankles and is in Francis Cabrini, Mrs Rayment had breaks in legs and arm and spent a period in the Intensive Care Unit at the Alfred; she is now progressing slowly but satisfactorily. Fortunately their 12 months old son escaped unscathed.

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Eric Craig was rushed to hospital mid-November with a respiratory complaint requiring the assistance of oxygen and we hope that he picks up very soon.

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Rollo Brett entered hospital early December for a minor operation but expects to be fit by Christmas. Having had quite a hectic year he has decided wisely to avail himself of recreation leave following his stay in hospital and we can expect to see him late January/early February.

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Len Dalrymple won't be looking at any new building plans for a while. Fielding at silly leg in a recent cricket match he lost sight of the ball which struck him full force in the left eye. He was severely concussed and had three fractures below the eye. The operation is now over but as yet we don't know when he is to join us again. This could mean he may hang up his pads at last - the old reflexes not being the best.

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LABS. GOLF DAY

Due once again to the efforts of Alva Allen another most successful outing was conducted at the Ivanhoe Links in late October. We assume Alva's score of 107 could be contributed to a lack of concentration whilst ensuring that the other 27 players were enjoying themselves.

Winners of the various sections were: -

Section A	<u>John Kelly</u> (80)
Section B	<u>Dave Geldard and Peter Dalliston</u> (101)
Section C	<u>Vic Sargeant</u> (117)
Longest Drive	<u>Neil Wain</u>
Secret 9 Holes	<u>John Kelly</u>
Nearest the Pin	<u>Ron Dempsey</u>

Congratulations to Eric Koop who has been promoted to Section B. Commiserations to "El Greco" Woolcock who has slipped badly and appears to be heading for Section C (or D) - a little overweight, perhaps. When he addresses the ball with his club, he can't see the ball, when he can see the ball, then he finds his club is about 6" too short. Jan Bylstra's 158 is not an error - he really played 36 holes.

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THE LYON PARK ANNEXE

Most people will be aware of the considerable transport problems facing many of those scheduled to move to Lyon Park next year. Recognising this, and in the current national fetish about the lack-of-fitness of Australians and the current energy crisis, a move is being made to encourage staff to travel to and from work by bicycle.

Part of the carrot is the proposal to erect a luxury bicycle shed at Lyon Park - the new annexe. Several proposals have already been received and are currently engaging the minds of 'experts' at all levels.

One suggestion, emanating from on high and obviously concerned with the propriety of things, is that a section of the Shed should be reserved for Senior Officers. However, this matter is being held in abeyance because of the difficulty in deciding just who will be entrusted with the key to the Executive Cycle Repository.

A further suggestion is linked with the proposal for flexible hours and the abhorrence some officers have of time clocks. It is proposed that each officer will be allocated a separate hook in the shed. Each hook will be wired to a mini-computer and the mere act of hanging up his bike each day will record his attendance at work. Development is at present in hand on a special locking device which will prevent the officer from releasing his bike unless the computer has determined that he can reasonably complete his darg within the pre-determined aggregation period.

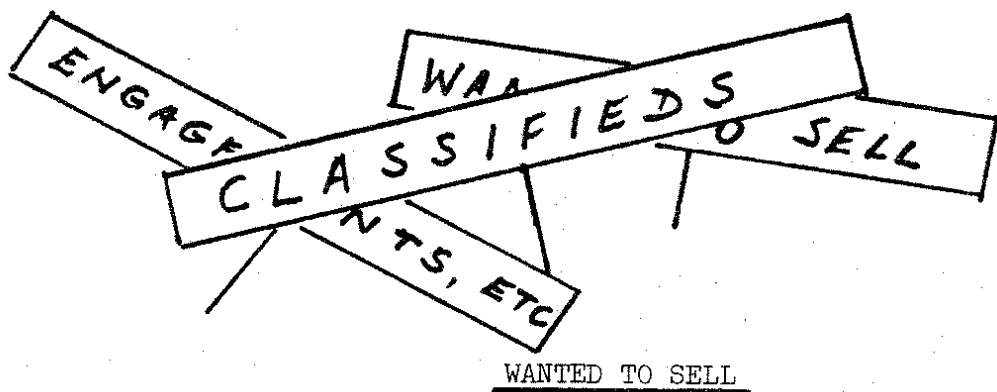
Finally, of course, the total annexe will be surrounded by a six-foot cyclone fence surmounted by barbed wire to prevent interference by local vandals with the bicycles therein stored or with the time-monitoring devices.

Further suggestions are invited from interested people before the whole proposal is set in concrete and jettisoned.

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Brand New:

Continental Tents
 Primus Equipment
 Campavans
 Fibre Glass Dinghies
 Archimedes 4 H.P. Outboard Motors

Negotiate with NEIL DEANS 630 7593

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ONE only Ferguson, 4 track, reel to reel, tape recorder
 (minor repairs necessary). \$30.00.

ONE only National mono, portable, cassette recorder (needs
 servicing). \$35.00.

Contact Ed Stanley 630 6303

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HONDA C.90, motor cycle, good condition, \$125.00 O.N.O.

Contact David Eagles 630 7907

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FOR HIRE

Caravan, 15 feet, 6-berth with annexe.

Contact NEIL DEANS 630 7593

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ENGAGEMENTS

Library Rita Torcaso to Ross Monterosso

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Design (Special Projects) Peter McMullen to Jane Reeves

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MARRIAGES

Library Maureen Hubbard to Gary O'Neill

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Design (Special Projects) Joy Robertson to Peter Caldwell

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BIRTHS

Admin. Group to Mary and Barry Evans a daughter
Marita Nicole, sister for Karen

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Computer Application to Diane and Laurie Mackechnie a
and Techniques daughter, Lisa Jane

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Lab. Instrumentation to Denise and Kevin Bartlett a
daughter, Sharma Lee

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ex-Customer Apparatus to Elizabeth and Michael Ingram
(and also Auntie Virginia Wells)

(? FAILED TO MEET DEADLINE)

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Library to Elaine and Ken Irby a son
Darren James

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Library to Joy and Alby James a son,
Alister

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Library to Paula and Sandy Draga a son,
Mark

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WELCOME to:

Noel Powell, Assistant Grade 1
Peter Robertson, Physicist Class 1
Bruce MacLennon, Physicist Class 1
Debby Gane, Assistant Grade 1
Oria Tenen, Engineer Class 1
Irene Carvalho, Typist
Harold Handlesman, T.A. Grade 1

WELCOME to:

Do Quang Phiet, Engineer Class 1
 Anthony Lobascher, T.O.(Sc.) Grade 1
 Isabel Barresi, Typist
 John Napier, Assistant Grade 1

and to all our vacation students who will be with
 us for the next few months.

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FAREWELL to:

Ilga Petering from the library who has accepted a position closer
 to home whilst she prepares for the addition to her family.

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Gwen Butler, Switching and Signalling, who has transferred to
 National Telecommunication Plan. Gwen was presented with a very
 beautiful gold wristlet watch to remind her of her many happy years
 spent in the Labs.

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Paul Battlay Design, (Special Projects), who has reached retiring
 age and now becomes a gentleman of leisure. I'm sure all that have had
 the pleasure of coming in contact with Paul would agree that the word
 "gentleman" aptly describes this most modest person. Subsequent to a
 luncheon given in Paul's honour, Les Murfett, the Labs. No.1 ad-libber,
 presented Paul with two books on Astronomy and some other items on
 behalf of his many colleagues. Paul surprised the gathering with an
 excellent response for a fellow who usually has very little to say. He
 also taped the proceedings to keep as a memento of the occasion.

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Carla Borst from the library who resigned to take up a position
 with the Queensland State Public Service at Southport (fancy having all
 that sunshine and being paid as well).

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Peter Darlow, ex instrument maker who was successful in qualifying for a position of Clerk Class 1 and has taken up his appointment in the Radio Australia Branch under the leadership of ex-Lab member Bill Beard.

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Margaret Duck, Typist Supervisor Grade 1, who is going to leave us early in January. Margaret is taking up a position of food supervisor/accountant/medical officer/administrator, etc. In other words she has decided to enjoy all the lazy days of a housewife, have the usual breakfasts in bed and become an authority on TV daytime soap operas.

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$\sqrt{929}$? $\frac{1}{2} \times \frac{1}{5} - 2 = ?$
 ? Postwork Powers $8 \approx$
 $x^2 + y^2 = ?$ $2x + y =$

David Blackwell, Customer Apparatus, has provided the two following brain teasers and will be pleased to supply the correct answers if you contact him on 5311: -

1. Bob Kett was accustomed to catching a train at 5.38 p.m. arriving at his local station at the same time as his wife, who picked him up in the family Mercedes. One day Bob left earlier than usual and caught the 4.52 p.m. train. Alighting at his home station and seeing no sign of the Mercedes, he started walking. Mrs Kett, who set off from home at the usual time, met Bob along the road, picked him up and returned home.

As the journey from the station to home is uphill, the car travels at half the speed of the journey in the opposite direction. Ultimately Bob arrived home only 18 minutes earlier than normal.

How long did Bob spend walking along the road?

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2. A prime number P is selected at random in the range 1000-3000. What is the probability that one of the numbers $(P + 1)$ and $(P - 1)$ is divisible by 6?

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The last poser for 1973 from the Editor: -

3. A Stock Market Problem

The stock of Roger Smith and Co. has been selling for the last year in the range of 70-80. A year ago the price of Roger's stock was $3/4$ the price of his competition, Gibbs, Inc. Gibbs is now selling at exactly $1/8$ of a point below its price last year, but Smith and Co. have declined, so far it is only $2/3$ of the price of Gibbs now.

What are the two currently selling at?

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APPRECIATION

Dave Harroan would like to express his appreciation for the letters of condolence and personal calls from his many friends in the Laboratories following the very sad and sudden loss of his mother.

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