

Looking Ahead

FOR THE FUTURE, an important assignment is to watch for and recognize situations on railroads, in which there is a justified need for new forms or systems of signaling or communications.

Important examples of such instances in the past include: (1) continuously controlled cab signaling, 1923; (2) car retarders, 1924; (3) centralized traffic control, 1927; (4) all-relay, free-lever interlocking, 1929; (5) short-arm crossing gate, 1937; (6) automatic switching control in yards, 1951; (7) complete automatic control of retarders, 1953; and (8) compact control machines for interlocking, 1955-56, and for CTC, 1957.

Similarly important accomplishments in the communications field include (1) telephone train dispatching, 1907; (2) printing telegraph adapted to railroad use, 1910-14; (3) multiple-channel carrier; (4) complete dispatcher-controlled two-way radio train and wayside communication, 1951-52; (5) loudspeaker system for centralized checking in freight houses, 1950; (6) talk-back speaker system for yard communication, 1944; (7) communication for centralized car information and accounting; and (8) through dialing of railroad-owned automatic telephone system, L&N.

This record shows that the past two generations did well. With better education, research, electronics and new materials available, the next two generations should do better—if they have the two essentials, insight and tenacity.

FOR THE FUTURE a list of objectives might well include:

(1) *For use where single-unit self-propelled cars, with off-tread brakes are in service—a system of automatic wayside control of signals, crossing protection and electric locking, actuated by passage of trains (carrying no special equipment) in which continuous protection is provided irrespective of intermittent loss of shunt.*

(2) *Automatic control of corresponding signals when balometer infrared ray hot-box detectors are actuated.*

(3) *For use in signals, an electric lamp that will have a life of at least three years without failure if voltage is held within practicable limits.*

(4) *Further investigation of methods for extensive consolidation of the control of interlockings in terminal areas, and for consolidated control of CTC on entire operating divisions of up to 500 to 600 miles, or perhaps an entire railroad of 1,000 to 1,500 miles of line.*

(5) *A system of automatic freight car identification at outlying unattended locations; the system to require only inexpensive items or painting on cars, so that the system can be practicable for application to all cars in interchange service in Canada and the United States.*

(6) *To meet the need for an enormous increase in railroad-owned long-haul line circuits, there should be developed a typical pattern for an integrated system including line wires, radio, and microwave, each utilized where it serves the purpose most effectively and economically, owned and operated by the railroads.*

The demand for more line circuits will be brought about by: (a) need for railroad-owned telephone service by direct dialing between all principal offices on a railroad; (b) enormous increase in "telegraph" message traffic because of car reporting and centralized electronic machine accounting.

These, and other correspondingly important objectives, might well be attacked on two fronts: (1) from the standpoint of new ideas and equipment to be in-

vented and developed, and (2) from the standpoint of whether the system as proposed will be economically justified by the savings effected or by the increased efficiency thus attained.

Equipment, such as the new compact types of control machines, are available for extensive consolidation of centralized traffic control. Further thinking brings forth more ideas that might be tried.

In May 1957, when moving a CTC control machine, the Seaboard Air Line used tape-recorded sound impulses, prepared ahead of time, to send out line codes to control power switches and signals to authorize train movement on 406 miles between Miami and Jacksonville. This could be called selective "programmed" control, which may be worth further investigation for application not only in CTC, but also in consolidated control of interlockings. For an explanation of programmed interlocking control see January 1958, p 28.

Approaching this subject from another angle, perhaps some of the control equipment and practices now used in automatic classification yards could be applied in CTC controls. In conventional practice the dispatcher watches his board to see the locations and progress being made by trains involved. Based on this information as well as tonnage, grades, etc., he decides which train is to be diverted to a siding or to the other main track, to permit some other train to pass. Conceivably the information available to the dispatcher could be given electrical values, to be fed into a computer, which at the proper time would produce an "answer" that would send out CTC controls, without requiring constant attention of the dispatcher.

Selective "programming," as discussed above, might be used. A dispatcher, exercising only supervisory and monitoring control of such a system, could effectively have charge of a very long territory. Whether such a system is feasible or economically justified may seem doubtful, but it should be installed on a test basis. Some disadvantages are foreseeable. Especially during daylight working hours, various employees such as track foremen, signal maintainers, bridge foremen, communications linemen and others, must get information by phone, from the dispatcher, concerning the location and progress being made by trains. According to one dispatcher in charge of a CTC machine on a 329-mile territory, these phone calls take more of his time than the operation of the CTC machine during daylight hours. One solution may be to have two dispatchers on duty during conventional working hours for track forces, and one dispatcher the remainder of the time. Furthermore, concentration of CTC controls for several dispatchers districts into one office should reduce the number of chief dispatchers required.

For Single-Unit Self-Propelled Cars

With reference to automatic signal and electric locking control actuated by single-unit self-propelled cars. If only a few such cars are to be operated over an extended mileage, perhaps the best solution is to equip each car with apparatus which sends current down through the wheels to hold track relays down. Such equipment, operating on a self-checking basis, is said to be available.

On the other hand, if numerous such cars are to be operated on a relatively short mileage, perhaps the most economical solution is to apply special wayside circuits, in a system that requires no special signal apparatus on the cars. By applying the approach-clearing practice, and including special types of track circuits now used in classification yards and crossing

protection, in combination with selective directional controls, perhaps the objective can be obtained at a cost that will be justified.

Check the Economics

When analyzing projects from the economic viewpoint, one way to measure the possible justification for a proposed invention or project is to assemble information concerning value of train hours saved, reduction in maintenance expense due to track removed, savings in wages of levermen, operators, and crossing watchmen, where positions are abolished.

The Burlington has recently completed the installation of a modern yard with automatically controlled switches and retarders. This yard cost about \$4 million and will save about \$750,000 annually. On the average, each freight car will move through this new yard in 3.5 hours less time than was required in the previous yard. The new automatically controlled retarder yard at Elkhart, Ind., on the NYC will make a total annual saving of about \$4,740,000. Also, this yard will cut average yard time of cars about 11 hr. 40 min. March 1958, p 28. Savings in money, car time and reduction in damage can be accomplished by installing modern automatic switching and car retarder controls in approximately 40 yards where retarders were installed with manual controls in the years 1925 to 1950, inclusive.

Interlocking Consolidation Saves Money

The practicability of combining the control of two or more interlockings has been advanced by recent developments of more compact control machines and line code equipment, as discussed above. Wages for one leverman on duty three tricks every day, based on 40-hour week, including paid holidays, vacation, retirement, insurance, etc., range from \$21,066 to \$23,500 annually, depending on local circumstances.

A recent consolidated interlocking control project completed in 1957 includes switches and signals at the end of a passenger station, as well as at six junctions or ends of yards, and two railroad crossings, extending about 15 miles on two main routes. The project eliminates numerous train stops and delays, improves safety, and eliminates about 50 switchtenders, levermen and block operators. The special interlocking on the Burlington at Cicero, Ill., which controls 14 interlocking layouts on 35.3 miles of three-track terminal area, saves the wage costs of levermen "round-the-clock" at such plants.

Better Crossing Protection

With the increased volume of motor vehicle traffic on streets and highways, part-time protection by watchmen or gatemen is not as effective as in years gone by. Because of the increased wage rates and the introduction of the 40-hour week, along with paid vacations, the annual wage cost for a gateman, round-the-clock, every day at a single crossing, totals about \$18,960. To obviate such expenses, and to enhance safety, the answer is to install modern, short-arm gates, with flashing-light signals, controlled automatically.

The DL&W, which had 330 crossing gatemen and watchmen in 1940, has made installations to reduce this to 25 gatemen now. The C&NW now has a special program under way, including changes and improvements in protection at 330 crossings, involving an expenditure of \$3.6 million by the railroad, the savings

being about 59 per cent each year. This will increase as wages increase.

How CTC Saves Time and Money

On a busy single-track line an installation of CTC should improve safety and save approximately one minute per mile, overall time, for each through freight train. This increases the utilization of locomotives and thereby reduces the number required. Also, several telegraph operators and levermen may be eliminated. In some instances the installation of CTC on a complete division enables one dispatcher to handle territory previously requiring two.

One road, which removed a section of second main track and installed CTC on the remaining single track, has carefully figured all costs for rail, ties and ballast, the answer being that the annual saving as applying to track only, averages \$4,435 per mile every year. Similar costs on another road that is to remove track are \$5,000 per track-mile for every year. These and other savings should pay for the new CTC in about three years. In 1951 the Erie removed second main track and installed CTC on the remaining single track on 60 miles. The salvage value of the rail and ties paid all but \$60,000 of the cost of the track changes and new turnouts, as well as the signal system. The saving in track maintenance was at the rate of \$92,000 annually at that time.

Communications Saves Big Money

In numerous ways, modern communication equipment and systems improve railroad operations and reduce expenses. When railroad-owned automatic telephone exchanges with through dialing are installed to replace manual operators, the saving in wages pays for the new automatic system in a few years. By applying radio in yards and extensive industrial switching areas, one or more crews, and sometimes an assistant yardmaster can be eliminated. Loudspeaker systems facilitate yard operations and improve on-time train departures.

Radio saves time when road trains are entering or leaving sidings with hand-throw switches, and also when trains encounter delays due to hot boxes, broken knuckles, etc. Radio on local freight trains is an important aid in reducing or eliminating overtime.

Loudspeaker centralized checking in freighthouses reduces the number of checkers and facilitates operations. The Central of Georgia installed centralized freight checking communications systems in freighthouses at Columbus and Macon, Ga. Each system provided for checkers in a central location, working via portable loudspeakers with callers in the freight cars. In both installations the freight is being handled with fewer men than previously when the loudspeaker systems were not in service. At Macon the installation cost \$5,290, resulting in annual savings of \$14,845. Later the delivery location was removed and consolidated with the receiving department, which resulted in further savings of \$313 per month. This added to the initial savings, amounted to \$18,602 annually. At Columbus the installation cost \$5,698 and resulted in a saving of \$7,464 annually. Summarizing: cost of installation, both stations, \$10,988.70; total yearly savings, both stations, \$26,067.36.

The communications facilities being installed on many roads as part of the new car reporting and car accounting systems, are an aid in more effective utilization of freight cars. Thus, fewer cars are needed.



John Dunn at work! This is a candid photo taken about two years ago in our Chicago office on a hot, humid July day. John is dictating a letter to Anne Jesse, secretary and assistant editor.

Open Letter to John Dunn

Dear John:

We want to let your friends in the signaling and communications fraternities help celebrate this 50th Anniversary with you. Although space would not permit everyone to join in, we came up with a host of friends to present their good wishes. John and I say "well done" and add that the fine and true words presented on these pages couldn't be said of a finer gentleman and friend. Best wishes, John Dunn.

JOHN S. VREELAND, *Vice-President and Business Manager*

ROBERT W. MC KNIGHT, *Associate Editor*

Atchison, Topeka & Santa Fe Railway

John Dunn's career with the magazine parallels my own career with the Santa Fe, and during these years my contacts with John Dunn and the magazine were many indeed. My contributions were meager compared to the untold benefits that I gained from my constant readership of *Railway Signaling and Communications* and my long and valued friendship with John Dunn.

J. A. PARKINSON, *General Superintendent of Communications and Signals. Chairman of Communications Section, AAR.*

Automatic Electric Sales Corp.

As editor, John Dunn has brought readers up to date in both the signaling and communications fields, and has presented many new ideas and new equipment items.

His willingness for assistance and cooperation has been much apparent in my friendship with him and in his business ventures. Personal and business-wise, John's work has become more and more of a value to the communications fraternity.

Like all the high standards we have in our fields, his name is synonymous with my esteemed thoughts and

feelings toward *Railway Signaling and Communications* and its editor.

HOWARD N. INWOOD, *Manager of Railroad Sales*

Bendix Aviation Corp.

John Dunn, through his highly intelligent presentation of new ideas and new systems employed in the railroad communication and signaling fields, has enriched all of us who are interested in this vital part of present day railroad operations. His recognition of the value of these new ideas together with his reporting and editorial comment has given the railroad field a service that cannot be measured in dollars. The tribute being paid Mr. Dunn is one which he rightly deserves.

A. ELLIS JONES, *Former Manager Mobile and Railroad Sales, Bendix Radio Division*

For more years than many of us can remember, John Dunn, a personal friend and editor of *Railway Signaling and Communications*, has provided its readers with technical and systems communications information.

His work set new patterns of communications concept and application for a large number of railroads throughout the country. The highly informative articles and practical applications imparted through this publication have, I'm sure, advanced communications on the railroads by quite a few years.

WILLIAM W. PRICE, *Director Public Relations and Sales Promotion, Bendix Radio Division*

Brotherhood of Railroad Signalmen of America

For myself, as well as the railroad signalmen it is my privilege to represent, I want to extend sincere congratulations to *Railway Signaling and Communications* magazine on your 50th Anniversary.

Your trade publication has served the industry well. Under the editorial guidance of John Dunn, *RS&C* has

helped win acceptance for new and improved systems and devices, new techniques and technological changes which have contributed so much to the growth of our industry and the efficient and safe operation of trains.

JESSE CLARK, *President*

Canadian National Railways

Thank you John, for the valuable service you have rendered over the past 35 years as chronicler of Railway Signaling and Communications. Accurate comprehensive reports of good works help clarify issues and influence decisions to proceed with new installations. Your reports, read 'round the world, affect us all. Congratulations on past accomplishments. Best Wishes for the Future.

E. P. STEPHENSON, *Signal Engineer, System*

Chicago, Burlington & Quincy Railroad

I have known John Dunn for about 30 years. One of his greatest philosophies is his belief in the interchange of ideas. I think that this can be best reflected in the numerous articles appearing in Railway Signaling and Communications. When he found something new that somebody was doing, John took great pride in availing the information to others.

A. L. ESSMAN, *Chief Signal Engineer*

In looking back over the years, I am impressed again with the great value of Railway Signaling and Communications to the railroad industry, not only as a reliable historical reference but as a current source of information enabling all of us to keep in touch with all of the developments in our specialized field as could be done in no other way.

And in all this John Dunn has played a magnificent part. A persistent seeker after the facts—an indefatigable searcher for new things—an editor with the faculty of expressing himself in good English, clearly, plainly and unmistakably—a knack of illustrating his articles with the right photographs—a photographer himself of no mean ability—all these qualities and many more have enabled him to do the excellent job that he has been doing for the past 35 years.

HAROLD H. HASSELBACHER, *Retired
General Superintendent of Communications*

Communications Section, AAR

John Dunn's retirement will be a loss to his friends, associates and to the industry. Through his kindness, vision and planning he not only increased the scope and leadership of Railway Signaling and Communications, but also other publications. In attaining this success, he gained a host of friends (including the undersigned) and admirers who wish him many, many years of good health and happiness.

A. H. GROTHMANN, *Secretary*

Copperweld Steel Company

It's been nearly 35 years ago that I started as a young traveling sales engineer for Copperweld. One of my duties was to introduce our products to all associated with the railroads. John Dunn always had time to help going over the rough spots, and I found his judgment always to be accurate and valuable.

May I add my sincere congratulations to the host of others I am sure he has received.

WILLIAM W. EGE, *Vice-President
Wire and Cable Division*

Corning Glass Works

Congratulations to Railway Signaling and Communications on its 50 years of service to the railroad signal people and the industries that have helped to make modern signaling a reality. For many years I have found your magazine both interesting and useful.

For 35 years RS&C has had an editor whose work has been both his vocation and avocation. His friends are legion in the signal fraternity, and I am confident that they all join me in sending hearty congratulations to John Dunn.

D. L. KILLIGREW, *Manager Railroad
and Industrial Sales Department*

Denver & Rio Grande Western Railroad

It is indeed a pleasure and a privilege to write you John, on your 35th anniversary with Simmons-Boardman Pub. Corp. I believe our meeting and knowing each other probably is approximately equally as long.

You should be very proud of your record as the editor of such a highly technical periodical for so many years that always maintained such an interest and written in such a manner the layman understood.

Congratulations and continue with your fine record and good health.

B. W. MOLIS, *Superintendent
Signals and Communications.
Chairman of Signal Section, AAR*

Thomas A. Edison Industries

For the past 35 years, all of us in the railroad signal industry have leaned on John Dunn's general knowledge of signaling and the literary clarity of his articles to keep abreast of modern signaling.

We naturally are sorry to learn that John Dunn will probably retire later on in the year as we have worked with him for the full 35 years he has been associated with the signaling magazine. We know that all of us have to lay down our tools some day, and we can only hope that John will have a long life ahead, with no signal failures or false-clears to mar his good health and happiness.

W. J. SAVAGE, *Director of Sales
Primary Battery Division*

The Electric Storage Battery Co.

John Dunn has always been a good friend of Exide's through the years, and we have always found it a pleasure to work with him. His never failing courtesy, cooperation and perception of our product's relation to the signaling field have won him and Railway Signaling and Communications many admirers not only here in the general offices, but also in the field with our salesmen who sell the railroads.

We are pleased to extend our best wishes to both John Dunn and Railway Signaling and Communications for 50 years of good service to the railway industry. We know that you will continue the fine work on into the future.

W. E. FISCHER, JR., *Manager
Advertising and Sales Promotion*

Fansteel Metallurgical Corp.

The high standards of equipment and performance in American signals and communications are due in no small part to the excellent reporting of John Dunn in

keeping the profession informed. Not only the engineering and operating personnel, but the equipment manufacturers owe John a great debt of gratitude.

GLEN RAMSEY, *Vice-President
Rectifier-Capacitor Division*
ALAN PERCY, *Director of Public
Relations*

General Railway Signal Co.

The acknowledged dean of signaling reporters, John Dunn, has long filled an important niche in our signaling fraternity. Railroads and manufacturers alike have benefited from his timely and informative articles on what's new in our field of mutual interest. Here's wishing a high green for John all the way.

ARTHUR E. HEIMBACH, *President*

Great Northern Railway

With the coming of celebrating the 50th year of Railway Signaling and Communications magazine, I also want to congratulate you, John, on attaining 35 years of successful association with it. Your astute management has certainly brought the magazine to a highly valued periodical.

May I wish you continued success and good health to continue your fine work.

ALLEN H. FOX, *Engineer Communications*

The Kerite Company

In congratulating Railway Signaling and Communications on its 50th anniversary, we cannot help but mention we believe a large proportion of the success of this extremely fine publication should be given to our very good friend John Dunn, who has served faithfully for 35 years as editor. Our well wishes to you for your continued success.

ARTHUR H. SMITH, *Executive Vice-President*

Motorola Communications & Electronics Inc.

When Motorola entered the railroad field in 1949, one of the first persons I met was John Dunn, editor of Railway Signaling and Communications. Always a staunch believer in railroad radio, he and the magazine he represents provided much encouragement and help in pointing out to the railroads the attributes of the many phases of railroad radio.

John is to be commended on his leadership, vision and promotion of new and modern concepts of communications and signaling. The railroad fraternity owes him a debt of gratitude.

R. FLOYD MC CALL, *Vice-President and
Manager Railroad Radio Product Sales*

National Carbon Company

As a constant reader of Railway Signaling for 40 years, I am happy to extend my congratulations to your magazine on its 50th anniversary. And personally, John, many thanks for your kindness in supplying, in unstinted measure, statistical information and good advice when I needed it. Good luck!

J. S. GEMMEL, *Retired
Manager Railroad Sales*

New York Central System

On the 50th anniversary of Railway Signaling and Communications, I surely would like to pay a tribute

to the magazine and its editor, John Dunn. I feel he is to be highly complimented on the progress that has been made in the coverage and format of RS&C, which presently so well covers its field. Congratulations and best wishes!

JOHN L. NIESSE, *General
Superintendent of Communications*

The Okonite Company

If there is anyone in the railroad publishing business who takes a more straightforward, diligent and practical approach toward acquiring and spreading useful information than John Dunn, I have yet to meet him. He has always been generous with his time and ready with help and suggestions. John is a credit to the field he has so ably served for so many years. It has been a privilege to work with him in the interests of the American railroads.

RICHARD S. HAYES, *Director
of Public Relations*

Ohio Brass Company

It has been my pleasure to know John Dunn throughout the period of his editorship of Railway Signaling and Communications, and have observed how the magazine has developed under his warm and conscientious efforts.

The years of friendship are rewarding personally and in relations within the signaling fraternity, as a result of his activities.

W. PAUL BOVARD, *Manager Rail
Bond Division*

Paper Manufacturers Company

As the telegraph system of the railroads gave way to the Teletype systems which utilize paper tapes in one fashion or another, we found it necessary to carry our message to a wide group of interested parties. To this end, we found that Railway Signaling and Communications has been able to afford us a very satisfactory coverage.

With the many changes that have taken place in the communications systems over the passing years, RS&C has also been among the first to describe and report this progress.

Congratulations on your 50 years of fine communications.

W. S. COAR, *Vice-President*

Pennsylvania Railroad

It has been my pleasure to have known John Dunn many years during which period his one interest was to factually report such information beneficial to readers of periodicals with which he has been associated. John Dunn has proven himself an asset to the railway signaling and communications field.

JOHN I. KIRSCH, *Assistant Chief
Engineer, Communications & Signals*

Heartiest congratulations to the outstanding contributors to signaling and communications; to Railway Signaling and Communications magazine; and its most devoted and tireless editor, John Dunn!

My best wishes John for many rewarding years of retirement. Your many friends will miss you, and your friendly, helpful advice.

WINFIELD G. SALMONSON, *Manager
Operating Rules*

Rail Joint Company

We extend our sincere congratulations, John Dunn, on the occasion of your 35th anniversary as editor of *Railway Signaling and Communications*.

Your cheerful greeting and friendly smile, together with your outstanding ability and sincerity, have been a rewarding 35 years experience for all of us.

May the years ahead be filled with good health and happiness.

WILLIAM J. ACKER, *Eastern Sales Manager*

Richmond, Fredericksburg & Potomac Railroad

Well done John Dunn!

I have read every copy of *Railway Signaling and Communications* since you have been editor. Your choice and handling of subjects is the only way we railroad signal and communication men can keep informed in this fast changing field.

V. P. SHEPARDSON, *Engineer, Signals and Communications*

Signal Appliance Association

I note with much interest that our good friend, John Dunn, has served 35 years with the fine publication, *Railway Signaling and Communications*.

I should like to pay tribute to John for his excellent work and willing cooperation in all matters of mutual interest.

G. A. NELSON, *Secretary-Treasurer*

Signal Section, AAR

I would like to add my tribute to you, John, for your successful 35 years as editor of *Railway Signaling and Communications*.

Working with you at Signal Section annual meetings and at committee meetings has been a pleasant experience, personally and otherwise.

The signaling fraternity has been well served by your integrity, hard work and vigilance in presenting new ideas and developments in your magazine, also by your stimulating and thoughtful editorials.

It is my sincere wish that you will have many happy and healthful years ahead to relax and enjoy your retirement—a vacation so well earned.

ROBERT H. C. BALLIET, *Secretary*

Simmons-Boardman Publishing Corp.

John Dunn has seemed to me for years to be an integral part of the railroad signaling and communications profession, or business. (It's both a profession and a business, of course.) An industry or profession goes forward to the degree that information about progress in one place is swapped for similar information in another. To me it seems wholly evident that the kind of progress railway signaling and communications have enjoyed is ascribable in some important measure at least, to the kind of competent journalism John Dunn has practiced.

JAMES G. LYNE, *Chairman Board of Directors, Editor, Railway Age*

Simplex Wire & Cable Co.

I have known John Dunn for 20 years. In attending the various local signal meetings and the annual meet-

ings of the AAR Signal Section, it was always a pleasure to meet John and discuss the many problems that the railroad personnel and the supply personnel had. Always, John Dunn was ready to cooperate and furnish answers.

I certainly wish him a long retirement with good health to enjoy it.

EDWARD F. GALVIN, *New England District Manager*

Southern Pacific Company

John Dunn's tremendous drive, creative ability and his dynamic and pleasant personality have been vividly portrayed in the many hundreds of issues of *Railway Signaling and Communications* that have held my interest and stimulated my thoughts in the field of communications throughout the years.

A. E. DE MATTEI, *Superintendent of Communications*

Congratulations on the 50th anniversary of your publication, and to John Dunn for a job well done. Have been a regular subscriber for over 30 years, and the personal benefits derived from the information published have been most helpful to my career in the signal engineering field. Best wishes for your continued success.

H. B. GARRETT, *Signal Engineer*

Union Pacific Railroad

It is regrettable that the signaling fraternity will be losing capable, courteous and friendly Johnnie Dunn. And yet, I am sure, that we all hope that he can lay aside his working tools and enjoy many years of retirement that he so richly deserves.

T. W. HAYS, *Retired General Signal Engineer*

Western Railroad Supply Co.

We consider it an honor to join in paying tribute to John Dunn's 35 years of leadership in the signal industry.

The signal fraternity is probably the tightest professional group in the whole railroad industry. They have a well-deserved reputation for being the most progressive group, and have always been eager to accept new ideas which would progress their profession and save money for the railroads.

This great progress is due in no small measure to John Dunn's efforts in making available promptly to the profession, all new developments in the industry.

GEORGE L. HUDSON, *President*

Westinghouse Air Brake Company

The announcement of the 50th anniversary of *Railway Signaling and Communications* magazine affords me the opportunity to congratulate a publication which has been a prime influence in the growth and acceptance of railway signaling systems, by railroads, throughout the world.

It would also be appropriate to commend John Dunn for his 35 years of excellent editorial coverage. He has earned a place in every signalman's heart.

A. M. WIGGINS, *Vice-President and General Manager, Union Switch & Signal Division*