

## GERALD A. HALE: PARKING METER REMINISCENCES

By LeRoy H. Fischer\*

## INTRODUCTION

Gerald A. Hale, the author of these memoirs, was the co-developer of the world's first operable parking meter. Born on a farm near Minco, Oklahoma, on September 20, 1904, he received his first formal education in a rural grade school of that community. He graduated from Minco High School in 1922 and entered Oklahoma State University that same year as a student in industrial engineering. The degree of Bachelor of Science was awarded him in this field of study in 1927. He continued as a graduate student at Oklahoma State University and in 1935 completed the requirements for the Master of Science degree in mechanical engineering. In the meantime, he also served as an instructor in the Department of Mechanical Engineering, and it was in this capacity that he worked with Professor H. G. Thuesen in developing the parking meter.<sup>1</sup>

Soon after he received the Master of Science degree, he moved to Oklahoma City to become the engineer and vice-president of the Dual Parking Meter Company, a firm established and headed by Carl C. Magee, who had conceived the idea of the parking meter. When the World War II shutdown for parking meter production came in 1942, the Dual Parking Meter Company was sold. Hale then worked on an improved design for the parking meter and was named executive vice-president of the newly organized Magee-Hale Park-O-Meter Company of Okla-

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\*LeRoy H. Fischer is a Professor of History at Oklahoma State University. The preparation of this article was supported by the Research Foundation of Oklahoma State University; this assistance is deeply appreciated and gratefully acknowledged. Gratitude is also expressed to Mrs. Eugene B. Pope of Carnegie, Oklahoma, the sister of Gerald A. Hale, and to Professor H. G. Thuesen of Oklahoma State University, Hale's co-developer of the first operable parking meter, for their editorial assistance.

This is the third article on the history of Oklahoma's unique association with the parking meter to appear in *The Chronicles of Oklahoma*. See H. G. Thuesen, "Reminiscences of the Development of the Parking Meter," with annotations and bibliography by LeRoy H. Fischer, Vol. XLV (Summer, 1967), pp. 112-142; and LeRoy H. Fischer and Robert E. Smith, "Oklahoma and the Parking Meter," Vol. XLVII (Summer, 1969), pp. 168-208.

<sup>1</sup> Mrs. Eugene B. Pope to LeRoy H. Fischer, July 7, 1968, in the H. G. Thuesen Collection, University Archives, Oklahoma State University Library, Stillwater, Oklahoma; Gerald A. Hale transcript and records, Registrar's Office, Oklahoma State University; Gerald A. Hale file, Department of Industrial Engineering, Oklahoma State University; Hale's unpublished Master of Science thesis, with which Thuesen assisted, titled "Determination and Analysis of Impact Loads on Simple Beams," copy, Oklahoma State University Library; Thuesen, "Reminiscences of the Development of the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLV, pp. 121-127, 130-133.



(Division of Public Information, Oklahoma State University)

**GERALD A. HALE**

**CO-DEVELOPER OF THE FIRST PARKING METER**

A former faculty member of the College of Engineering, Hale became president of the Magee-Hale Park-O-Meter Company of Oklahoma City.

homa City. He served in this capacity until the death of Magee in January, 1946, when he became the president and the major stockholder. In 1962 he retired and the firm was sold to the Rockwell Manufacturing Company.<sup>2</sup>

Hale was a member of the Oklahoma City Chamber of Commerce, the Oklahoma Society of Professional Engineers, and a Registered Engineer in Oklahoma.<sup>3</sup> Although active in these groups, Hale's most extensive contribution was made through his long and close association with Oklahoma Christian College. He was a major force in the growth and development of this institution. He was elected to its Board of Trustees on March 26, 1957, while it was located at Bartlesville. He took a leading part in moving the college from Bartlesville to Oklahoma City and in the changing of its name in 1959 from Central Christian College to Oklahoma Christian College. He served as chairman of the executive and building committees. He was elected chairman of the Board of Trustees of the college on October 27, 1961, and served in that capacity until his death on August 17, 1967.<sup>4</sup>

Hale wrote his reminiscences of the development and production of the parking meter at the request of H. G. Thuesen and LeRoy H. Fischer, both of the Oklahoma State University faculty, and Robert E. Smith, an Oklahoma State University graduate student in history preparing a thesis on the development and impact of the parking meter. Hale's memoirs were completed only seventeen days before his death.<sup>5</sup>

—LeRoy H. Fischer

#### HALE'S PARKING METER REMINISCENCES

Carl C. Magee, a newspaper man of Oklahoma City, was the father of the parking meter. By 1933, when Magee was serving as chairman of the traffic committee of the Oklahoma City Chamber of Commerce, the parking of automobiles on Oklahoma City

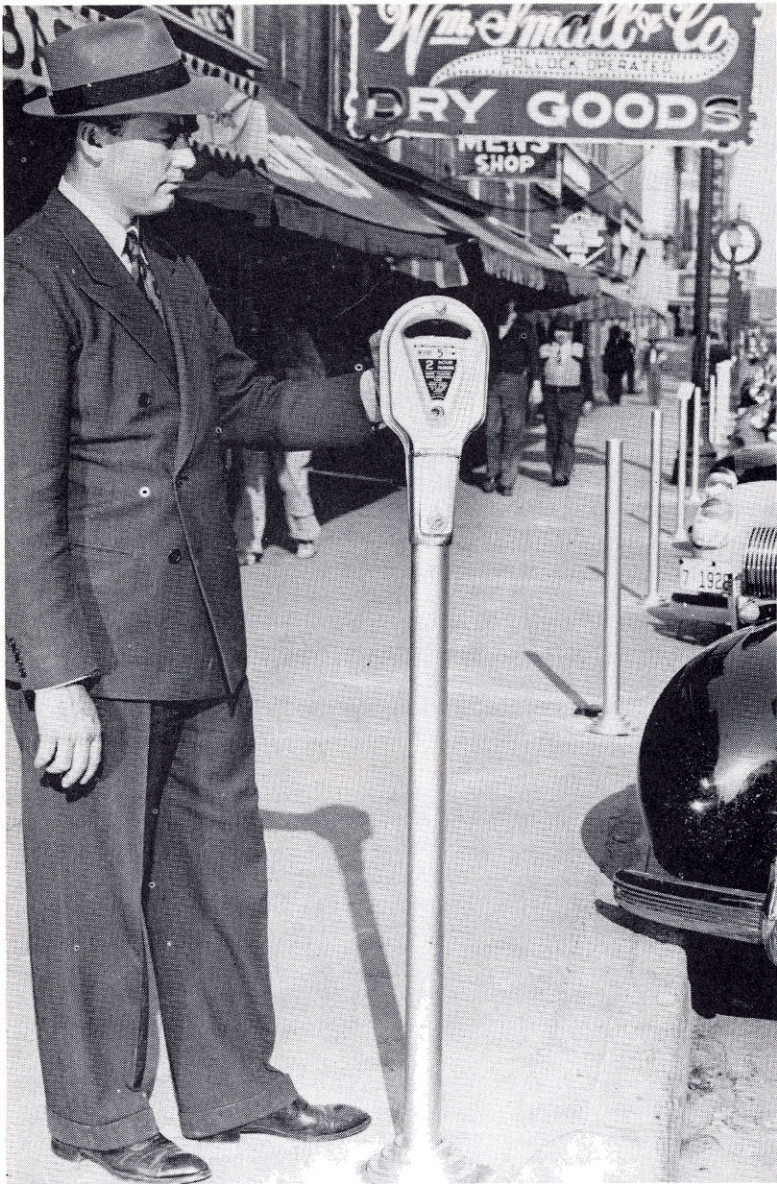
<sup>2</sup> Hale file, Department of Industrial Engineering, Oklahoma State University; Thuesen, "Reminiscences of the Development of the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLV, p. 136.

<sup>3</sup> Hale file, Department of Industrial Engineering, Oklahoma State University.

<sup>4</sup> Mrs. Eugene B. Pope to LeRoy H. Fischer, July 7, 1968, in the Thuesen Collection, University Archives, Oklahoma State University Library; W. O. Beeman to LeRoy H. Fischer, August 7, 1968, in *ibid.*; *Oklahoma City Times*, August 17, 1967, p. 5; *The Daily Oklahoman*, August 18, 1967, p. 8; *The Oklahoma Journal*, August 18, 1967, p. 14.

<sup>5</sup> Gerald A. Hale to H. G. Thuesen, August 1, 1967, in the Thuesen Collection, University Archives, Oklahoma State University Library; Robert E. Smith, "The Development and Impact of the Parking Meter Before World War II" (Unpublished Master of Arts Thesis, Oklahoma State University, Stillwater, Oklahoma, 1968).





(University Archives, Oklahoma State University)

**WORLD'S FIRST INSTALLED PARKING METER,  
OKLAHOMA CITY, 1935**

The type of parking meter used in the world's first installation in Oklahoma City in July, 1935. This meter was manufactured for the Dual Parking Meter Company of Oklahoma City by the Macnick Company of Tulsa.

streets had become a major problem. The efforts of Oklahoma City traffic officers to "chalk tires" on vehicles parked in time zone areas were not very successful. While thinking about this problem, Magee conceived the idea that what was needed was a timing device mounted on the curb, to be set by the motorist after he had parked. Magee realized, however, that the motorist could periodically reset the device, extend his stay, and thus largely defeat its purpose. Magee then hit upon the idea of making it operate with a coin. This would give the control needed on the use of the device and provided an economic deterrent against abuse of the parking privilege.<sup>6</sup>

Magee next decided to check into the possibility of designing and building a coin-operated parking meter. He thought of his old friend, Phillip S. Donnell, who was dean of the College of Engineering at Oklahoma State University. Their negotiations resulted in a design and model contest among engineering students at Oklahoma State University, with cash prizes offered by Magee for the most workable designs and models.<sup>7</sup> After this contest, Professor H. G. Thuesen, head of the Industrial Engineering Department, and myself, decided this was a device that needed further study. For a year we worked in our spare time on the development of a satisfactory parking meter design and model.<sup>8</sup>

At that time there were very few manufacturing concerns in Oklahoma who had the proper experience and know-how to build a parking meter. The device involved a coin operated mechanism, a timing device, and a signal system. However, we were fortunate to find a concern in the state which had experience in both coin operated machines and timing devices. Arrangements were made with this concern, the Macnick Company of Tulsa, to do further

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<sup>6</sup> Information on Magee's background is in Thuesen, "Reminiscences of the Development of the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLV, pp. 115, 128; Fischer and Smith, "Oklahoma and the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLVII, p. 6; and Smith, "The Development and Impact of the Parking Meter Before World War II," p. 6.

<sup>7</sup> For details on the parking meter design and model contest of the College of Engineering at Oklahoma State University, see Thuesen, "Reminiscences of the Development of the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLV, pp. 115-119; Fischer and Smith, "Oklahoma and the the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLVII, pp. 172-175; and Smith, "The Development and Impact of the Parking Meter Before World War II," pp. 8-11.

<sup>8</sup> For details on the work of Hale and Thuesen in developing the first operable parking meter, see Thuesen, "Reminiscences of the Development of the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLV, pp. 121-132; Fischer and Smith, "Oklahoma and the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLVII, pp. 175-176; and Smith, "The Development and Impact of the Parking Meter Before World War II," pp. 11-15.

design work and to develop machines to build a quantity of parking meters. Within about a year and a half, the first meters were produced and ready for street testing. Oklahoma City welcomed the idea of making a test and started with 150 meters placed on one side of the street in alternate blocks. This placement was used to obtain a direct comparison between metered and unmetered blocks. On a hot July day in 1935, the world's first parking meters went into use. In the early morning, the meters were the subject of much interest by sidewalk crowds and motorists. There was not much use of the parking spaces at the early hours, as not much business was being done; normally, these spaces would have been full under the old conditions. As the morning hours passed, meter usage increased. Cars pulled into the metered spaces and moved out when their owners had finished their business, while in the unmetered zones the old congestion remained. Magee's idea of a coin-operated meter for the regulation of parking on city streets was proving itself, although at the time of the initial installation most everyone had been skeptical of what the meters would accomplish. Within a few days other businesses were asking for meters on their streets, and within several months far more than the original 150 units had been installed. A new product had been born.<sup>9</sup>

In the beginning, we named the business the Dual Parking Meter Company. Our selection was based on the fact that our meters were planned to serve a dual function: They were to be a new source of revenue, which was much needed for overall traffic improvement, and they were to provide a means of parking regulation. Their greatest advantage was in making possible the efficient enforcement of parking limits. We also decided in the beginning to call our new product the Park-O-Meter. We later discovered the name Parkometer (without hyphens) had been previously registered for a different product, and when we were unable to make a satisfactory arrangement with the Parkometer owner, we changed the name of the meter to the Dual Parking Meter, the same as the name of the company.

There was much national as well as local interest in the first parking meter installation in Oklahoma City. It was publicized through news stories all over the country, and even newsreel cameramen came to take pictures of the installation. Officials from other municipalities soon came to check on the installation, and we gradually began to receive orders from other urban communities. Meadville, Pennsylvania, was one of the first of the smaller cities to purchase meters, while Toledo, Ohio, was one of the larger cities during this early period to buy our product. Be-

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<sup>9</sup> The reactions of Thuesen to the world's first installation of parking meters in Oklahoma City are in his "Reminiscences of the Development of the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLV, p. 132.

cause most of these early installations were for testing purposes, the quantities were not large. During the first six months of our business, the total volume sold was approximately 1,500 units. After numerous cities and towns had made initial installations, the size of placements began to increase. Over the next seven years, our average sales were about 10,000 units per year.

When parking meters were first installed in 1935, they were operated by the user by turning a handle. We naturally accepted this type of mechanical design, since all vending machines were operated with handles. Out of this early experience we learned that operating conditions for parking meters were different from those for vending machines. When a vending machine user made a purchase, he always turned the handle sufficiently to get his purchase. With meters it was found that some users would purposely neglect to properly operate the handle if this would tend to give them more time than their coins entitled them to receive. This factor decreased the efficiency of enforcement, with the amount depending on how diligent the police enforcement was against handle turning. Out of this situation we conceived the idea of an automatic meter in which the motorist had only to insert his coins. Within a year after the first installation in Oklahoma City, we were offering this new type of meter, and it soon replaced all of the original handle operated machines.<sup>10</sup>

The parking meter proved to be an efficient tool for regulating parking on city streets. Research has shown that the turnover of cars on a street is increased four to five times by the use of meters as compared with the old police method of chalking tires. Actually, parking close to businesses is the life blood of merchandising. Without adequate parking close to stores, there will be diminishing trade and a subsequent decline in property values. Parking meters are recommended for only one purpose, and that is regulation, both for onstreet curb parking and for offstreet lot parking. The revenue which parking meters produce should defray the cost of the meters, their upkeep, their enforcement, and contribute to the expansion of offstreet parking areas. In most towns and cities, the amount of parking space available on streets is insufficient, but the revenue from the street parking meter system can be used for expansion of offstreet lots, which can also be regulated with meters.

Seven years elapsed from the beginning parking meter installation in Oklahoma City to the World War II shutdown in 1942. During this period we sold 71,393 parking meter units. Eleven competitors entered the field during these same years,

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<sup>10</sup> Thuesen's discussion of the mechanical considerations and problems involved in developing the first parking meter model are in *ibid.*, pp. 121-123, 130, 133-135, 140.

and their sales averaged from 110 to 35,000 for a grand total of 120,000. Only five of these companies did substantial business, the largest competitor being the Miller meter of Chicago. When the war shutdown came, there was no certainty of when we would be able to resume manufacturing and sales. A majority of our stockholders wanted to get their profits out of our concern. As a result the Dual Parking Meter Company was sold to a Mr. Tribble, and he in turn sold it to the Union Metal Company of Canton, Ohio. This company continued to manufacture our Dual meter after the resumption of business at the end of the war.

During the war shutdown period, Magee and I were able to purchase the "Parkometer" trade name. This put us in the clear to use the Park-O-Meter name for the new meter we planned to bring out at the end of the war, and we named our business the Magee-Hale Park-O-Meter Company. We decided to work independently during the war period on a new parking meter design. The Macnick Company of Tulsa, the manufacturing unit of our Dual Parking Meter Company before the war, worked on what they thought was best, and we in Oklahoma City did the same. We both had the benefit of much experience in parking meter design. Although the early meters operated on a single coin only, the trend had grown to using multiple coins, and more than one coin size. Also, the early parking limits had been for two hours or less. With the increasing use of meters for parking lots, the limits were expanded, in some instances to all day or several days. Since the rate or amount of time per coin had begun to vary widely, it seemed desirable to design a meter which would be flexible and adjustable with respect to all three of these variables. Problems such as the size of money storage, with use of pennies in the coin combinations, also had to be considered. Signal visibility was another factor, calling for a larger signal so as to save patrolman time in checking meters on streets and parking lots. The time had thus come for a completely new product based on all operating conditions and needs encountered to that time.

After many months of work, the Macnick Company of Tulsa and the Magee-Hale Park-O-Meter Company of Oklahoma City came up with new meters, designed and hand built, ready for competitive testing. After a considerable period of experimentation and study, it was decided to produce the meter we had designed in Oklahoma City. Detailed drawings of the meter parts were made in Oklahoma City, and the Macnick Company produced the parts. After these were assembled, we had a prototype meter for further testing, for the additional checking of drawings, for advertising photographs, and we were ready for production and sale when the war shutdown would be over. The important design features and changes of our new meter were as follows:



1. There was complete automation, calling for no operation on the part of the user other than the insertion of a coin or coins.

2. The signal area was made larger for viewing the indicator from all sides and at a greater distance. The signal section at the top of the meter was wider than the mechanism compartment.

3. The mechanism was made as small as practicable and yet perform its specified functions. It occupied a space narrower than the signal area, but was deeper than that portion.

4. The coins were inserted in a single slot on the right hand side of the meter for convenience.

5. The mechanism was designed to operate on pennies, nickels, dimes, quarters, and courtesy tokens. The mechanism would also take multiples of any of these coins. If desired, any of these coins could be removed from the operation.

6. The meter was also designed to provide split rates. For example, on a ten-hour parking lot meter, set to provide ten hours for twenty-five cents, it would also be possible to adjust it to the rate of five cents per single hour up to four hours.

7. The mechanism was designed so as to be easily adjustable on the parking meter location for any coin combination, for any time per coin, and for any time limit from a few minutes to a twenty-four hour period. The time per coin, for instance, was readily set by loosening a screw and moving a slip ring. In effect, this meter could perform any parking function that it would be called on to carry out.

8. The coin compartment was at the bottom of the meter, and it was made large enough to hold the revenue collected during a week of maximum usage of the meter. The coin compartment door was so designed that upon positioning the collector cart, unlocking the door and opening it, the money would automatically dump into the cart.<sup>11</sup>

When business resumed in 1945, after the World War II shutdown, we had the only newly designed meter on the market. Most of our former sales representatives were ready to go to work. The City of Oklahoma City ordered several hundred, and we made our first postwar installation. The performance of the meters was beyond our expectations. They stirred interest all over the country, and orders soon began to come in from every section of the nation. Since materials were scarce in this early postwar period, the factory was hard pressed to keep up with the demand. The backlog grew until we were almost six months behind on filling orders.

After a year or two, we began to work down our backlog. The demand slackened some, with installations having been made in all of the important cities of the United States by ourselves and our competitors. The Miller meter and the Dual meter also did a good volume. After a few years, the business of these companies dropped off considerably, while ours continued to hold up. At the end of 1961 we had 1,500 installations in cities in the United

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<sup>11</sup> For a discussion of Thuesen's contribution to the development of the new post-World War II parking meter mechanism of the Magee-Hale Park-O-Meter Company, see *ibid.*, p. 138.



(University Archives, Oklahoma State University)

#### THE MAGEE-HALE PARK-O-METER

The Magee-Hale Park-O-Meter of the immediate post-World War II period, designed by G. A. Hale. This meter incorporated washer rebound device suggested by Professor H. G. Thuesen of Oklahoma State University.

States, South America, Canada, and Europe, with a total of 700,000 meters. During the latter part of this period we licensed the Venner Company of London, England, to make our meter for distribution in Europe. They tooled up completely to manufacture our meter, and made some desirable design changes which we had not seen fit to incorporate. Their work was of the highest quality, and they installed the Park-O-Meter all over Great Britain, Europe, and Africa. For our part, we were paid a royalty for each meter sold when the cost was fully collected. As in the United States, our meters were sold by the Venner Company on a fifty-fifty division of revenue until fully paid, or at a 5 percent discount for cash.<sup>12</sup>

By 1962 the nature of the parking meter business was changing. It was becoming more and more a replacement of older equipment, rather than new installations. The downtown areas of many cities had stopped growing, and in many instances were declining. Shopping centers were beginning to develop, and at these locations adequate free space for the parking of automobiles was an important consideration. As the meter market began to be saturated in the downtown areas of cities, the volume of meter sales decreased. Thus by 1962 a good portion of the marginal companies had ceased to be active.

Because of these changing business conditions, some consolidation of the parking meter concerns seemed to be desirable. Therefore when the Rockwell Manufacturing Company offered to buy our business, we were interested. This merger would combine two of the larger companies, ourselves and Dual, thus insuring more volume in a declining market. The terms of sale for the outright purchase of our business were made by the Rockwell interests, and we agreed to sell to them. The Macnick Company of Tulsa, who built our meter in the pre-World War II period, had already sold their manufacturing business to Rockwell. The Rockwell firm discontinued production of the Dual meter, and moved the manufacturing facilities for making the Park-O-Meter into their Tulsa plant. Our former industrial building in Oklahoma City was converted for use by Rockwell-Standard in the manufacture of Aero-Commander airplanes.<sup>13</sup>

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<sup>12</sup> Hale provided additional details on this overseas franchise in his "Parking Meters Made in England," *American City*, Vol. LXX (May, 1955), p. 7.

<sup>13</sup> The Magee-Hale Park-O-Meter Company was located at 3909 Willow Springs Avenue, Oklahoma City, from 1957 until 1962, when the firm was sold and Hale retired. Thuesen, "Reminiscences of the Development of the Parking Meter," *The Chronicles of Oklahoma*, Vol. XLV, p. 136; Southwestern Bell Telephone Company, *Oklahoma City Telephone Directory*, April, 1958, p. 196; Southwestern Bell Telephone Company, *Oklahoma City Telephone Directory*, April, 1962, p. 239.

This concludes my reminiscences of the development and use of the parking meter. It was a most interesting field of developmental and business activity. Magee's parking meter idea proved practical, and as a result parking meters are now used by cities and towns over most of the civilized world. As other nations develop and the parking of their motor vehicles becomes a problem, parking meters will undoubtedly prove their worth in those areas as they have in the United States and Europe.