

Volume 18 Number 7  
**GAS and ELECTRIC  
NEWS**  
*Published by*  
The Rochester Gas & Electric Corporation  
JULY, 1934







## NATURE'S TONIC

Do you fear the force of the wind,  
 The slash of the rain?  
 Go face them and fight them,  
 Be savage again.  
 Go hungry and cold like the wolf,  
 Go wade like the crane:  
 The palms of your hand will  
 thicken,  
 The skin of your cheek will tan,  
 You'll grow ragged and weary and  
 swarthy,  
 But you'll walk like a man!

—HAMLIN GARLAND.

# GAS & ELECTRIC NEWS

Published by The Rochester



Gas & Electric Corporation

Vol. 18—No. 6

July, 1934

## Mankind Has Long Sought The Comforts of Air Conditioning

THE history of mankind, back through antiquity, is full of crude attempts to make life more pleasant, healthful and comfortable by means of a certain attempted control of atmosphere. Obviously, moving air was cooler than stagnant air. Nature taught this. The use of fans, therefore, was one of the earliest means used to secure cool comfort. The earliest stone carvings of Egypt pictured this application. The rulers of old Egypt apparently never became reconciled to the dry, torrid heat which that climate specialized in. They tried to do something about it.

Neolithic man knew that sheltered spots, possibly near waterfalls, were cooler, more comfortable. The ancient Chinese brought snow and ice from distant mountains to cool their monarchs. Air conditioning was rather expensive in those days. Various other crude devices, windmill fans, wind-catchers, etc., have been brought forth from time to time. Almost every race, tribe or clan has tried to solve the problem of air conditioning. Many of them found that there was a relation between air movement and comfort. Some of them discovered that their crude fires with the heat they pro-



Recent air cooling exhibition on the Main Floor of the Gas and Electric Building. Various types of installations from a small "Weathermaker" for a room at home, to large units for use in plants, factories and public buildings were on display.





The beautiful Seneca Tap Room which is now air conditioned. Even persons who enjoy cooling beverages, appreciate them more when the air temperature is more nearly in harmony with the liquid refreshment.



A corner in the Manhattan Restaurant, East Avenue, where air conditioning gives zest to food even on hot days when a person is apt to be "Off his Feed." The young ladies shown are, left to right, seated at table: Mabel Jasper, Beulah Boyce and Mary Martin.

duced helped further to keep the air flowing and maintain more comfortable room temperatures. In the dry climate of Egypt, moisture was added to bring coolness, and in many parts of the world chimneys came into use as early as 1400, more than 500 years ago, though it was not until 1800 that the first real roof ventilator was thought out.

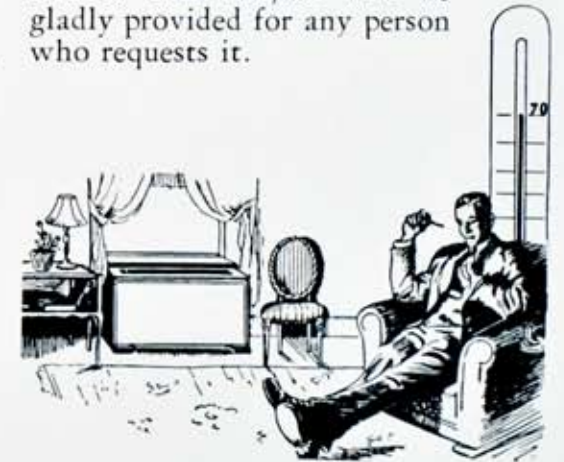
The Masa Verda Indians perfected the art of ventilating their underground tribal meeting houses, where religious ceremonies were held. This operation comprised the use of a fire on the floor, a hole in the roof for the smoke to get out, a series of low walls about the fire to control the movement of air warmed by the fire, and an air intake from outside to bring in fresh air as the smoke and heat rose through the crude "chimney." Modern engineers know that this device worked well indeed. They have tried changing the set-up, only to find that the Masa Verda Indians knew what they were doing.

After such a good start in what was to become air conditioning, it is strange that human beings have been so long in perfecting it and making use of it. The cave man was too prone to keep himself cooped up in the stagnant air of his cave; the Indian in his tepee and the Eskimo in his igloo. Even today, there is a strong belief among people that night air is unhealthy. People shut windows tight, keep out fresh air. The cabins of the southern negroes are quite generally stagnant with poor air because doors and windows are tightly barred at night, irrespective of the season. Poor air has had much to do with disease, poor health and general unhappiness. This generation, however, is really doing much to eliminate false prejudices.

Air conditioning is the science of controlling some of the fundamental functions of air: whether in industry, the home or public places. These

functions of air have to do with temperature, humidity, uniform distribution without drafts, prevention and exclusion of noises, and cleanliness or purity of air. Air carries heat and moisture in quantities that can be controlled. It also carries, when not conditioned or purified, foreign matter, germs, debris, and common dirt. Modern air conditioning effectively controls these functions of air to the great benefit of people. Air conditioning, broadly speaking is not any one of these things, but all of them relatedly controlled during varying seasons, in different climates, to meet the specific requirements sought for.

Throughout antiquity the benefits of air conditioning, even in crude applications, could be had only by monarchs or very wealthy people. Today, however, air conditioning is within the easy reach of almost everyone. We are living in an age of comfort. People demand it. When this comfort can also bring enhanced health and well being it becomes substantially an obligation of humanity to learn about it. We trust that the information brought forth in this issue will be of educational and practical value to our readers. Additional information relative to this subject will be gladly provided for any person who requests it.



Mankind has always sought greater comfort from the weather. Today you can make your own "weather" by turning a switch. You can cool and cleanse the air of your home or any room in it at comparatively little expense.



## How to be Comfortable at Home in Hot Weather

FRANK C. TAYLOR

THE electric fan has many uses in summer to make a home more comfortable. In the kitchen an exhaust fan may be built in the outside wall to remove the heat from cooking. Another type of fan is available which is equipped with a frame which may be placed in the upper portion of the kitchen window to exhaust the hot air. This is not quite as good as the built-in fan from the standpoint of appearance, but it is surprising what such a fan will do toward keeping the kitchen comfortable on a hot day.

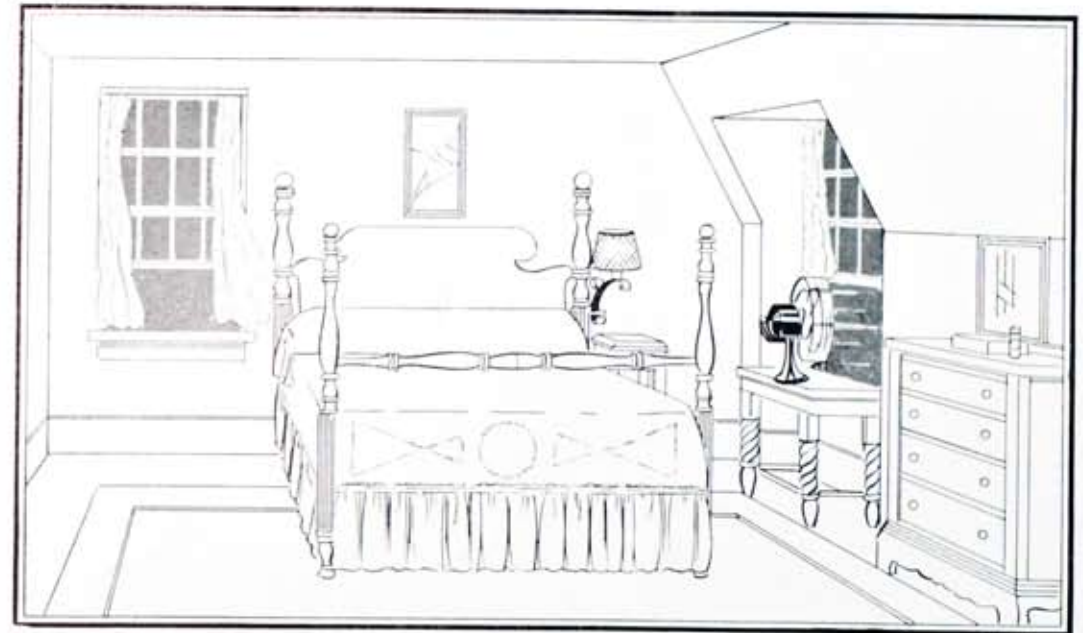
On a summer day the outside air cools much more rapidly than the air in the home. This is due to the fact that the walls of the home have been

heated by the sun. Before the decreased outdoor temperature is felt in the home the hot walls have to cool. A simple way to cool a room is to place an electric fan on the table a few feet from an open window and so direct the fan that the hot air is pushed out-of-doors. An open window at another side of the room will allow cool air to come in to replace the hot air forced out.

The so called "attic cooling system" has been very satisfactory. In this case an exhaust fan is placed at one end of the attic to exhaust the hot air. In the heat of the day the window at the other end of the attic is left open so that there is a steady flow of outdoor air passing through the attic, cooling



Gas heating installation in a Rochester home. At left of heating unit is the fan-filtering unit, which is shown with case off at the right. Any home can easily use existing air circulating facilities to filter and cleanse the home's air supply and help keep it cooler in hot weather.



Drawing showing how warm air may be exhausted from a room by using an electric fan. This article tells how your home may be cooled by resorting to various simple but effective means and using equipment most homes already have.

the roof and keeping the ceilings of the second floor rooms at a lower temperature than would be the case if the heat from the roof were allowed to raise the temperature of the attic. In the evening the attic window is closed and the attic door opened. If then, windows on the second floor and down stairs are opened, the attic fan will pull out the hot air from the entire house. This hot air will be replaced by the cool air coming in through the windows.

In a home with a hot air furnace you have all the duct work or pipes for a very excellent summer cooling system. All that is necessary is a fan to force the air through the pipes. This fan is located in the cellar adjacent to the furnace with the necessary pipes so that the air may be either circulated through the house or fresh air brought in from out-of-doors and forced through the furnace and ducts.

Of course, if you wish to breath clean air winter and summer, you will add a simple air filter to this system. This fan and filter are not just useful in summer but are valuable in winter.

Positive circulation of air from the furnace will result in a better heated home and will make your furnace more efficient and hence save fuel. In winter if air is circulated through a filter, the house dust will be removed and the air coming up through the registers will be clean. The operation of the fan in summer is as follows:

When you get up in the morning the dampers in the pipes on the suction side of the fan are so adjusted that no outside air is taken into the house, but the air is recirculated and cleaned in the filter. Ordinarily, even in the hot weather, your home is quite comfortable in the early morning.

When the air is recirculated in the morning all windows and doors should be closed and then the house becomes a closed, partly insulated box. It has been found in practice that the inside temperature of the home under these conditions lags behind the outdoor temperature. In other words, when it is 92 out-of-doors in the middle of the day, it is only 82 or less in the house. This is due to the fact that the outdoor

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## Air Conditioning in Industry

KENDALL B. CASTLE

**M**ANY industries are now using air conditioning in connection with manufacturing work. This is done usually for one or two purposes—either the health and efficiency of the employees, or for improving the quality of the product. This question of improvement of product in some industries became so important that the processes now in use would be absolutely impossible if it were not for air conditioning.

An illustration of both welfare of the employee and improvement of product was typified by the results in a large cigar factory. During the summer months their labor turn-over had always been very high and represented a very serious loss due to having to train new help. This training of help was of such major importance that detailed statistics were kept on its cost. After the installation of summertime air conditioning the turn-over was decreased, and the entire operation and investment costs of the air conditioning job were paid for by just one item, and this Company secured a 20% increase in production and an improved more uniform product in addition. This illustration occurred in Philadelphia, but is given here to typify what can be secured by proper conditioning. There are large numbers of conditioning installations in machine shops and similar types of factories throughout the country that were installed purely for the benefit of the employees.

The concerns that are putting in these installations believe they are justified on the basis of higher efficiency of the employee and a decrease in the time off due to sickness which usually results in a properly conditioned factory. In most cases it takes

only a slight decrease in percentage of time off due to sickness to warrant the investment in an air conditioning installation.

### *Essential to Kodak Processes*

In Rochester we have a very large amount of air conditioning used in industry. Practically all of these installations, however, are based entirely upon improvement of product, which is obtained from air conditioning. The film industry is the largest user of air conditioning in this City, for that matter the installation of refrigeration equipment at the Eastman Kodak Company, Kodak Park, is the largest refrigeration installation in the World.

A great net work of air conditioning equipment spread over the plant constantly reminds one that these manufacturing operations, despite their huge scale, are carried out under strict laboratory conditions.

Filter bags eliminate dust from the air that will dry sensitized film. Despite the cleanliness at Kodak Park frequent changing of these lintless Canton flannel bags are necessary to maintain the standards of air supply.

Ducts supply washed, conditioned air to the department that coats sensitive emulsions over a film base. These ducts carry nothing but purified air, but they require frequent flushing and polishing. They are large enough to be entered by a man standing at his full height. Where film or sensitized paper is in the open, the room is conditioned both as to temperature and absolute cleanliness.

Air conditioning also plays a very important part in the storage of film. By being able to maintain constant atmospheric conditions in storage rooms, deterioration of film is pre-



Top, Air conditioning at the Eastman Kodak Company is absolutely necessary to maintain constant conditions of temperature and moisture and to keep dust out of the atmosphere. It is a great aid in film coating, drying and paper making. Bottom, this room at the Stecher Lithographing Company is air conditioned to keep paper from stretching and of exactly the same size between multiple runs, for proper register.



vented. This enables the plant to maintain practically continuous production the year around, the variation being within 2%, although 45% of the amateur film output is sold during the three summer months. This makes it possible to keep in fairly constant employment highly trained employees, thereby saving the expense of breaking in new employees at the end of periods of slack work.

There are three other film companies in Rochester which have quite extensive air conditioning and refrigeration equipment. The combined power required to drive all this equipment totals 21,450 horsepower.

The printing industry also finds air conditioning of great value for paper stretches and shrinks very rapidly with changes in relative humidity. It is also affected as to its strength and its ability to be folded. If paper stretches between printings in a multiple color job any two colors may not come together properly; that is, register. If this occurs an entire run of printing may be ruined. The Stecher Lithograph Company installed some years ago a complete air conditioning installation. As soon as paper is received at their plant it is conditioned

to the atmospheric conditions which are maintained in the plant. From then on it is maintained at this condition and their troubles from stretch of paper is practically eliminated.

Hot humid days in summer make it practically impossible to make most varieties of candy. To overcome this difficulty three Rochester candy companies have installed air conditioning apparatus with a total horsepower of 127. In air conditioned space chocolates can easily be made and retain their form and color regardless of outside conditions, and also hard candies do not stick together.

The meat packing industry relies on air conditioning for not only the preservation of meat from spoiling, but also from drying out. In this case maintaining a high humidity is of major importance, as well as maintaining low temperatures. The refrigeration and air conditioning installation at the Rochester Packing Co. plant insure the people of Rochester that their "Arpeako" products will be of the best.

Refrigeration is used not only in the freezing of ice creams, but also in its packing, for modern ice cream plants

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Plant of The Haloid Company, manufacturers of photographic papers. Here air conditioning is used to maintain the exacting temperature conditions required in applying emulsion to photographic papers and drying it within the requirements of very special conditions.

# GENERAL INFORMATION

## Net Increase in Consumer's Meters for Year Ending May 31, 1934

	May 31, 1934	May 31, 1933	Increase
Electric	127,993	126,633	1,360
Gas	108,934	108,345	589
Steam	312	316	4*
<b>Total</b>	<b>237,239</b>	<b>235,294</b>	<b>1,945</b>

## Statement of Consumer's Meters by Departments as of May 31st

	Electric	Gas	Steam	Total	Incr.
1924	63,992	88,269	110	152,371	
1925	74,430	91,441	144	166,015	13,644
1926	84,437	95,450	198	180,085	14,070
1927	93,010	99,081	268	192,359	12,274
1928	101,553	103,759	315	205,627	13,268
1929	112,128	107,651	322	220,101	14,474
1930	117,257	109,237	348	226,842	6,741
1931	120,030	109,595	342	229,967	3,125
1932	126,985	109,361	330	236,676	6,709
1933	126,633	108,345	316	235,294	1,382*
1934	127,993	108,934	312	237,239	1,945

Incr. in	Electric	Gas	Steam	Total	Incr.
10 Yrs.	64,001	20,665	202	84,868	84,868

## Net Increase in Consumers' Meters by Months

	1931	1932	1933	1934
January	95*	203*	258*	54*
February	265	(1) 247	86*	86*
March	104*	(2) 5,818	460*	93*
April	252	24	128	266
May	470	259*	134	366
June	437	136*	94	
July	247	55*	7*	
August	302	58	132	
September	347	11	517	
October	1*	169*	318	
November	170*	293*	281	
December	80*	256*	211	

(1) Includes 650 meters of former Brockport Gas Light Co.

(2) Includes 4,900 meters of former Lake Ontario Power Corp.

	Month of May 1934	Month of May 1933	Increase
KWH Generated—Steam	1,491,455	702,209	789,246
KWH Generated—Hydro	12,926,447	22,478,297	9,551,850*
KWH Purchased	12,754,507	2,583,695	10,170,812
M Lbs. Commercial Steam Produced	68,872	67,118	1,754
MCF Coal Gas Made	383,968	347,779	36,189
Tons Steam Coal Used	6,987	5,183	1,804
Tons Gas Coal Used	32,668	29,642	3,026
Tons Coke Made	21,674	23,463	1,789*

	May 31, 1934	May 31, 1933	Increase
Number of Employees	2,270	2,107	163
Amount of Payroll—Month Ended	\$ 339,375	\$ 291,712	\$ 47,663
Amount of Payroll—Year Ended	\$3,758,246	\$3,421,493	\$ 336,753
Miles of Underground Duct	2,026	2,025	1
Miles of Underground Line	3,005	3,002	3
Miles of Overhead Line	8,145	8,078	67
Miles of Gas Main	816	816	—
No. of Street Arc Lamps	1,395	1,392	3
No. of Mazda Street and Traffic Lamps	25,475	26,256	781*
Total Number of Street Lamps	26,870	27,648	778*

\*Denotes Decrease

## EMPLOYEES BENEVOLENT ASSOCIATION

### Cash Statement for April, 1934

Receipts		Disbursements	
Balance 1st of Month	\$6,787.43	Sick Benefits	\$1,044.71
Dues—Members	760.01	Accident Off-Duty Benefits	103.84
Dues—Company	760.01	Expense of Nurse	128.28
Fees—Members	18.50	Miscellaneous	45.98
Fees—Company	18.50	Balance end of month	7,021.64
Miscellaneous	—		
<b>Total</b>	<b>\$8,344.45</b>	<b>Total</b>	<b>\$8,344.45</b>
Membership May 31, 1934	1,944	Membership May 31, 1933	1,770



## Air Conditioning . . . A Business Asset

**D**URING the last few years many branches of business and industry have come to a realization of the importance of cool, comfortable air during working and business hours. The attitude of an employee toward his work, his efficiency and value to his employer are both greatly improved by what is now generally termed air conditioning. Under these improved conditions an employee gets much more pleasure and satisfaction out of his work, and naturally makes a better impression, if he is a sales-person, upon the customers he contacts. Customers, too, feel the constructive effects of air conditioning. It gives them greater poise, mentally and physically, and they are more prone to buy what they see on display.

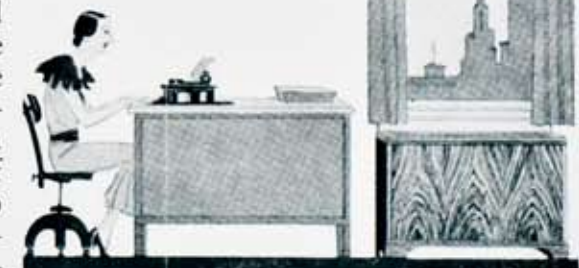
The public welcomes a chance to cool off on a hot day in a modern store or business place. Being comfortable induces a frame of mind more harmonious to buying, especially those things which require decision. Keep a person cool and comfortable and he is apt to roam about and make purchases he didn't intend to make when he came in the store. These reactions go hand in hand with air conditioning.

Restaurant owners have found that people are quite likely to be "off their feed" on hot days. They are then more fussy about ordering, and are much harder to please. Provide them a cool place in which to relax and collect their heat-bewildered thoughts and they become better customers because they eat more. What is even more important, they enjoy their meal infinitely more and go away with a pleasant memory of your place of business. People will walk farther to get to an air conditioned place, knowing the rewards in comfort and satisfaction that awaits them there on hot days.

The Frigidaire conditioning apparatus at the Odenbach Coffee Shoppe on Clinton Avenue South is exceedingly interesting. This Coffee Shoppe is very irregular in shape and presented many problems. These difficulties were overcome by installing four separate refrigeration machines with numerous air-cooling cabinets installed in the space to be conditioned. This makes it possible to absorb the heat directly where it is liberated. Although this type of installation tends to be slightly more expensive than the central duct work installation, there are many places where such a type of installation is practically the only type possible to use. Under these conditions, however, it proves to be highly efficient and economical.

Many Rochester business establishments have already profited by the use of this source of comfort. One of the most recent installations is that of the Waldorf Lunch, in the new Reynolds Arcade building. In this building, outside air is drawn into the conditioning apparatus treated to the right temperature and humidity and the dust removed. It is then carried throughout the building by ducts.

In the Waldorf Lunch, Fannie Farmers' Store, and



Comfort through air conditioning makes for more efficient work and greater comfort in doing it.



Top, Scene in the Waldorf Lunch, new Reynolds Arcade Building, a welcome source of relief from the heat on hot days. Eating in comfort is getting to be an appreciated added service. Bottom, Hershbergs, Jewellers and Opticians, maintain comfortable temperatures although required to use high intensities of illumination in displaying diamonds and other jewelry.





A display room on second floor, B. F. Forman and Company. Preventing perspiration on hands is eliminated, saving large expense in dainty dresses formerly soiled in handling before installation was made. The added comfort to customers through air conditioning is an added factor in stimulating sales.

the Woolworth Store located there the air is supplied through slotted grills near the ceiling. On the upper floor it is supplied through the window sills, being directed to the ceiling. As more air is required to maintain a suitable temperature in the conditioned space, more than the amount of fresh air required for ventilation only, return air is taken back from the conditioned spaces to the apparatus. This extra air is mixed with the outside air and recirculated to the rooms. On the lower floor this is done by grills leading directly to return ducts. On the upper floors the return air escapes from the individual offices into the main corridors through grills above the doors. From the main corridors the air passes through a vertical air shaft to the air-conditioning apparatus on the roof, from where it passes down through ducts placed beside certain outside columns, to the outlets by the windows.

The Manhattan Restaurant on East Avenue installed a complete year-round air-conditioning equipment last Fall. This includes a Carrier Company centrifugal refrigeration machine, two large sized year-around "Weather Makers" which contain heating, humidifying, cooling, dehumidifying and filtering equipment, as well as fans for blowing the air and a duct distribution system. These units were placed on the roof and connected to the system. These ducts draw some air from the restaurant and the balance from the outside. They transport it to the unit conditioners from which it is discharged to Blue Ribbon grills along one side of the restaurant, near the ceiling.

The first women's apparel store in Rochester to install air conditioning was that of B. Forman & Company. This store installed a York Ice Machinery Company's air conditioning unit to supply year-round conditioning for

the first and second floors. Provision was also made for taking care of the third floor at some future date. The system used in this installation consists of one large conditioning chamber with cooling supplied by a single large compressor driven by a 125 h.p. electric motor. On the first floor air is conducted behind the store's stock cases, along the north wall, to headers just under the ceiling. From here it is discharged through grills into the room. On the second floor the air supply is carried above a stock room on the north side of the sales area and discharged from a header running underneath the ceiling of the stock room, through grills, into the sales area. This installation called for a rather large amount of duct work running from floor to floor. However, no use-

able floor space was lost in the process and only a relatively small amount of floor space in the basement was actually required for the installation of apparatus.

Incidentally, one of the very important reasons for this equipment being installed at Formans was to prevent perspiration from forming on the hands of clerks and customers on hot days. This formerly caused a serious loss each year. By maintaining a reasonably low relative humidity, perspiration is immediately evaporated from the skin, thereby preventing the soiling of garments on display.

The Frigidaire installation at the Seneca Tap Room presented an unusual problem. Under what conditions will a person most enjoy beverages as well

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Scene in the Odenbach Coffee Shoppe which was recently air conditioned. Tests show that patrons eat more and with greater relish in places where the discomforts of hot days are eliminated through air conditioning. This is a factor in increasing patronage from persons who come back because of the pleasant experience for "more."



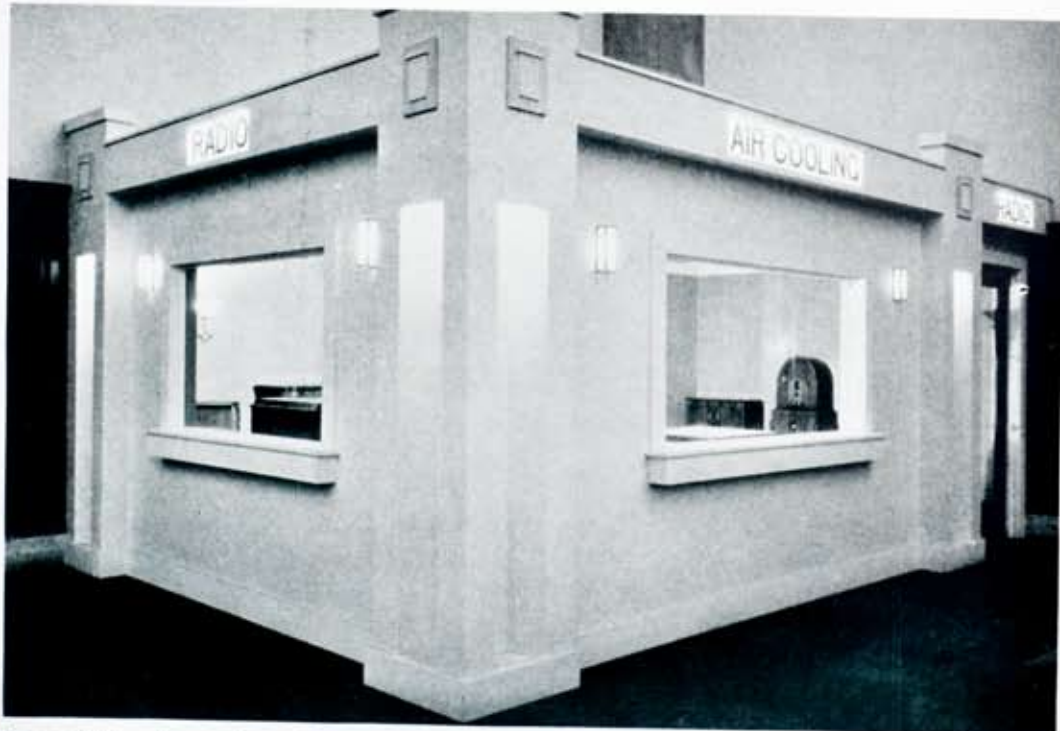
## Rochester Gas & Electric Corporation Enters Field of Air Conditioning

SEVERAL years ago the Rochester Gas & Electric Corporation became interested in air conditioning as a source of new business. At that time they assigned one of their engineers to study this field and become familiar with the work done by various manufacturers.

As time went on the Company decided that there should be an installation on the main floor and basement of the main office building to serve three purposes: First, to make this space more pleasant for the customers; second, to improve the efficiency of Company employees while working, and third, to have a working exhibit to show the prospective purchaser of air conditioning equipment. This air conditioning installation has

just gone into regular operation and can be inspected at any time by anyone desiring to do so.

Prior to putting in this installation this space was exceedingly hot. The heat liberated from the electric lights and from people, approximately 5,000 of whom enter the building daily, carried the temperature considerably higher than outside air. The result was that on a hot day in summer atmospheric conditions were very bad, regardless of the fact that approximately 30,000 cubic feet of outside air was daily being blown into this space. The equipment which was in use, prior to the installation of air conditioning, simply filtered the air, heated it in the winter time and introduced the air into the space through outlets in the



Air conditioned, sound proof radio demonstration room, Main Floor, where one can listen without annoyance, and in perfect comfort. If you suffer from hay fever, come in and try this filtered air which gives almost immediate relief in some cases.



Rochester Theatre advertises its ability to keep people cool and comfortable on hot days. Air conditioning is found to be a box office booster in the amusement world, and a business builder generally in other lines. The public appreciates any effort made to contribute to their comfort.

large columns, these outlets being covered with decorated grills. After studying our old system it was found that we could use the existing duct system and that by removing one bank of heating coils out of four we would still have enough heating surface in the duct and would have enough space to put into our air chamber in the basement the new equipment required.

### Fifty-ton Cooling Capacity

We had space in our apparatus room for the compressors. We also determined that a fifty-ton refrigeration installation would have sufficient capacity to give excellent comfort under anything but the most extreme conditions in summer which are likely to occur about once every other year. Under these extreme conditions the room would be infinitely more comfortable than in the past.

The new equipment consists of four 10-HP Carrier Brunswick Refrigeration Machines which supply cooling to direct expansion coils in the air duct. Following the coils eliminator baffles were installed to remove any drops of water which may be picked up from the cold coils and carried along by the air stream. Di-

rector veins were installed behind our decorated grills so that the air leaving the outlets would be fanned out and thrown at an upward angle, thereby having an adequate chance to mix with the air in the room before coming in contact with any of the occupants.

### Cooling Coils Literally Rain Moisture

This cooling equipment not only lowers the temperature of the air, but also removes excess moisture from the air which is usually encountered on hot sultry days. This excess moisture is bad enough when the temperature is high, but with the lowering of the temperature this moisture becomes very objectionable, so unless removed presents almost as poor conditions as if no cooling had taken place. It would be of interest to anyone to see the steady stream of water, which is removed from the air, coming off our coils. The quantity of this water varies decidedly with the moisture in the outside air. A few days ago a gallon jug was filled in five minutes.

We recommend to our customers that on the next hot, humid day they come into our building and enjoy the delight of a comfortably cooled atmosphere, and while there inspect our



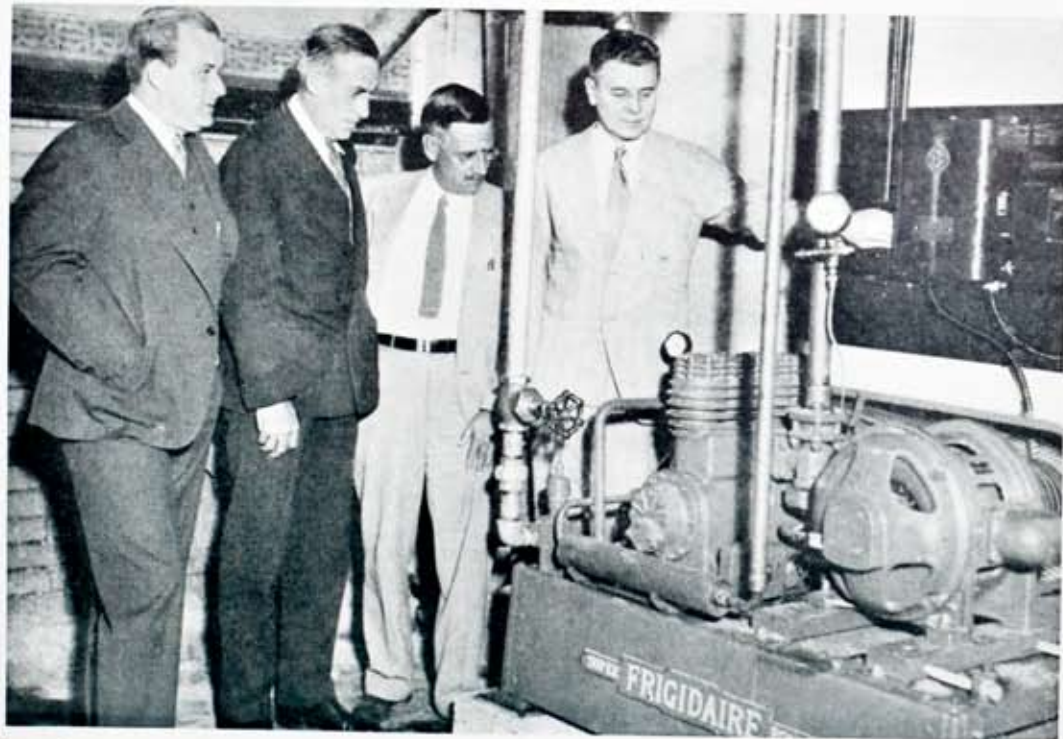
conditioning installation. We are sure that they will be surprised to see fifty ton of refrigeration capacity occupying only about forty-two square feet of floor space.

#### Special Radio Room

For some time it has been felt that the showing of radios on the main floor has been unsatisfactory. Radios could not be properly demonstrated to customers because of the decided noise. Also, the sound of the radios was distracting to the other occupants on the floor, who have routine work to do. A semi-sound proof room was built therefore, in which radios may be turned on as loud as desired without annoyance to others who in turn can not disturb those listening to the radio. Such a room requires careful ventilation to prevent it becoming unbearably hot. First, a fan filter installation was made similar to those often used on hot air furnace jobs in residences. Such

a piece of apparatus is exceedingly useful in keeping homes free from dust and reducing the bill for cleaning. It has also proved of great value in giving relief to people suffering from hay fever and asthma. We suggest that such sufferers come into our radio room and spend some time there. Many people receive almost instant relief by going into such filtered air.

The second part of the ventilation of this room is obtained by a self-contained air conditioning apparatus. These self-contained units are designed for the requirements of private offices, small stores, dentists and doctors offices, and in homes where one room only has to be cooled. They contain a refrigeration machine, coils and fan. Certain of these machines are designed to be connected with outside air coming from under a window. They use part of this outside air to supply fresh air to the room and the remainder to carry the heat picked up by the re-



One of the four Frigidaire refrigerating units installed in the basement at Odenbach's Coffee Shop. Inspecting it are, left to right, Messrs Elliott and Stafford, of the Frigidaire Company; Mr. Ivar Lundgaard, Manager Industrial Department, and Fred Odenbach.



Well-packed auditorium at the Eastman Theatre, one of the first to utilize the modern idea of clean, filtered and cooled atmosphere for the comfort of patrons. Filtered air also cuts down the expense connected with keeping clean public places where expensive tapestries, paintings and seating equipment are installed. The same is true of homes.

frigeration machine back outdoors. The moisture removed from the air in the room is also picked up by this air, discharged out of doors.

The other type of self-contained unit requires, in addition to electrical connection, a water supply and drain, the water taking the place of the outside air in picking up room heat.

The Frigidaire Corporation supplied the self-contained unit used for the month of June, and Westinghouse Electrical Company will furnish a unit during July. Similar units are also made by numerous other manufacturers.

For the last two weeks of June the Company has had on display on the main floor of their office building various pieces of air conditioning apparatus, these pieces being compressors, cooling coils, year around air conditioning chambers, and a small floor type unit with compressor attached which has been in operation. The equipment for this display was furnished by the following concerns: General Electric Company, York Ice Machinery Company, Carrier Engineering Corporation.

The Company recognizes the fact that the use of air conditioning is increasing very rapidly and that it is a

very promising source of benefit throughout a wide field where, enhanced health and comfort and increased business can be obtained.



Mr. Lundgaard explaining the operation of the Carrier refrigerating unit in the basement of the Gas and Electric Building to, left to right, Miss Veronica Leonard, Miss Kendelen and Miss Dorothy Maslyn. This unit supplies cooling equivalent to melting 50 tons of ice every 24 hours.



**GAS and ELECTRIC**  
« NEWS »

ROCHESTER GAS AND ELECTRIC CORPORATION  
89 East Avenue, Rochester, N. Y.

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VOL. 18 JULY, 1934 No. 6

**Observation**

ALEXANDER the Great became known as the foremost of all the conquerors of antiquity. Many of us think of him only as a super-warrior who was always looking for more worlds to conquer. Underneath Alexander's fame as a conqueror, however, were characteristics which marked him as a human being who could "dope out" situations and use them to advantage. When a mere boy he had unusual powers of observation.

Alexander's father, Philip of Macedon, owned an uncontrollable black steed whom none could conquer. This charger had killed a number of warriors who had tried to master him. At last, Philip was about to give orders that the brute be slain, when the lad Alexander insisted on being allowed to try to master him. Everyone expected that he would be tossed aside by the powerful Bucephalus. Watching his chance,

Alexander leaped deftly on the horse's back and managed him with ease. Thereafter, Bucephalus and Alexander became devoted friends, and the horse would follow his young master into any danger.

This apparently magical result was not sorcery, however. It was plain "horse sense." Alexander had used his powers of observation. He had discovered that Bucephalus was not an angry killer, but merely a frightened horse who was scared of his black shadow. Alexander turned the steed's head to the sun, calmed him, talked to him and—rode him.

You may be saying at this juncture "Well, I knew there was some trick to it." And so there was. Life is just full of such little "tricks" and the person who learns to use them to advantage has much in his favor. If we could see Alexander performing this stunt today, we probably would shout in glee the well-known slang tid-bit "Ride him Cowboy." Alexander had the faculty of riding his troubles, and not letting his troubles ride him. And when we are beset by some threatening Bucephalus, we too, might try turning our troubles into the sunlight of intelligent observation instead of being scared by some hovering shadow, which in most cases is no more dangerous than an ordinary "Bogey Man."

**Air Conditioning**

Probably no development of the gas and electric branches of the utility industry has done more for human comfort than the development of air conditioning. The rapid and enthusiastic response of a public that has sweltered for generations during the humid days of summer, particularly in this latitude, has spurred on the utility research departments for devices to meet a wide range of demands for homes and for stores and office

buildings and hotels. Many different types are now available, some using gas and others using electricity.

To the general public the term "air conditioning" has no definite meaning, says the New Jersey Public Utility Information Committee. But in its widest interpretation air conditioning lowers temperatures when they are too high and raises them when too low. It takes excess moisture from the air and adds moisture when there isn't enough to meet health demands. It can, and probably will, put an end to the age-old phrase, "It isn't the heat, it's the humidity."

**A Bulls-Eye**

A GENTLEMAN narrated to us an experience he had while working as an air photographer during the World War. He explained that his group consisted of about twenty-five men skilled in photography, who used to fly out over the enemies lines and secure photographs of gun emplacements, then skoot back to make large photographic maps to scale. Gun positions were so cleverly spotted in on the terrain of the enemy position that often such guns were silenced within a few minutes after this important aerial work had been completed. This, however, is not our story, which concerns something entirely different.

These men were in rather dangerous work. They were quite apt to be pursued and bombarded by enemy planes even though they flew very high. Their work was easy enough, but they were always working under mental strain.

Our narrator said that these photographers had the best times but probably the worst arguments imaginable. When in their quarters, marking time, they would argue about anything, and the arguments often became personal,

sometimes vituperative, especially when they concerned religion.

One afternoon they became embroiled in a discussion of creeds, religions, the hereafter and other such topics. The argument became heated and the entire group got "hot under the collar" because each man appeared to think that his specific belief was being ridiculed. They argued hopelessly for hours, after which the parley ended, with each man quitting the room thinking he had been highly insulted.

The gentleman first mentioned then went down to the camp's "Y" and for some unknown reason the first thing his eyes encountered upon entering the large assembly room was an ornate wall card on which the following screed was emblazoned in colorful letters. It was a quotation from a poem by Ella Wheeler Wilcox and read as follows: "So many paths that wind and wind, so many Gods, so many creeds; but just the art of being kind, is all this sad world needs."

This philosophy seemed to be just what was needed to settle all the argument. Needless to say all the men embroiled in the previous discussion were coralled and marched down to read it. It was a happy ending for what seemed to be a hopeless tangle of conflicting opinion. We have often wondered just how much good wall mottoes really accomplish. We shall have more respect for them in the future, after seeing how this one scored a decided bulls-eye. Perhaps any argument can be settled if we are smart enough to think of just the right thing to say.

"Learn to like people, not as relatives or friends or schoolmates or business associates, but just as 'folks.' This is one of the secrets of success as well as happiness. Those whose hearts are full of hate and contempt for their fellows are doomed to be the most miserable of mortals."—*Boy's World*.



## How to Keep Cool in Summer

(Continued from Page 175)

heat takes time to get through the walls of the house and before the inside of the home can attain a temperature equal to the maximum outdoor temperature, the city begins to cool off and the outdoor temperature drops.

Now, later in the afternoon or early evening, when the outdoor temperature and the indoor temperature are approximately the same, the dampers are turned and air is taken by the fan from out-of-doors and forced through the house. As the temperature drops out-of-doors, the fan forces this cool air into the home and forces out the hot air.

Some people may say that it is stuffy in a house closed up in this way during the day. They have obtained this impression from a house in which there is no movement of air and not operated in accordance with this system. This system, during the night, fills the house full of cool air from out-of-doors. Consequently, when the air in the house is warmed by the heat through the walls, the inside air increases in temperature but the relative humidity decreases. In addition, the air continually circulated by the fan eliminates the stuffy feeling and, as is well-known, air in circulation decreases the body temperature by evaporation.

The systems which we have outlined above have all been tried out and have been found to assist materially in giving comfort in the home in summer in spite of the outside heat.

## Air Conditioning in Industry

(Continued from Page 178)

find that air conditioning improves their ability to properly pack their ice creams. For that matter the ice cream industry requires refrigeration to freeze their product, to pack it, to store it and to deliver it in modern refrigerated trucks.

In many cities baking industries have successfully used air conditioning to enable them to produce a more standard and uniform loaf of bread, for they are then able to use the same mix the year around. Where conditioning is not used the mix has to be altered between summer and winter.

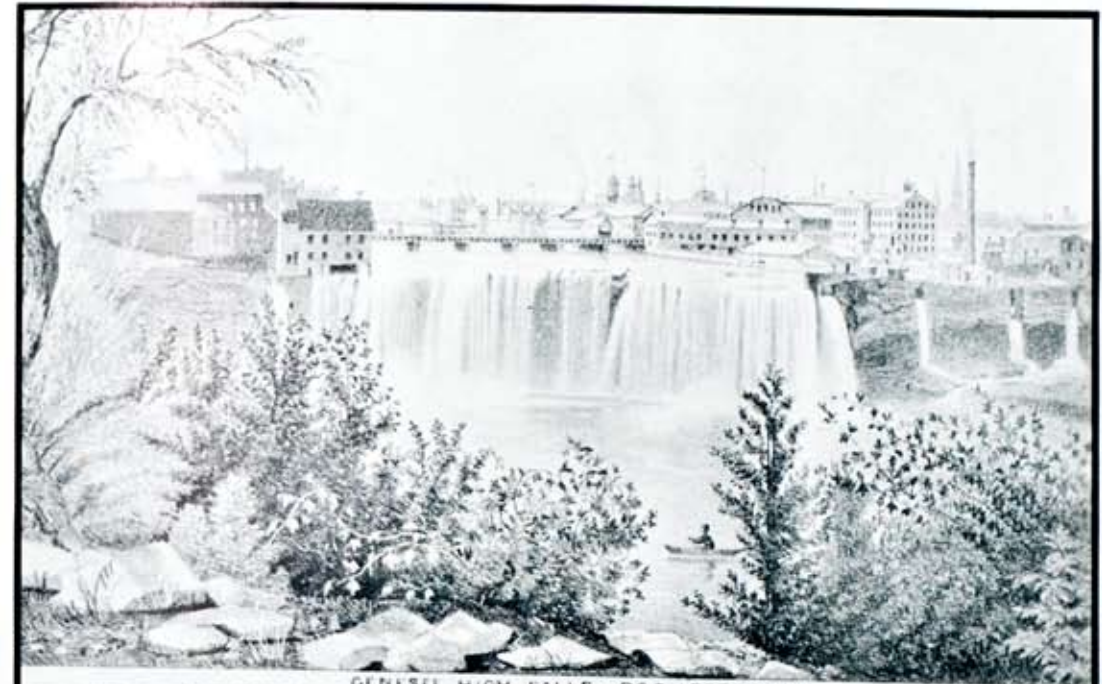
Air conditioning is continually playing a larger and more important part in industrial processes, one that enters into the economics of business and helps to produce more easily and efficiently products which are better and more satisfactory.

## Air Conditioning a Business Asset

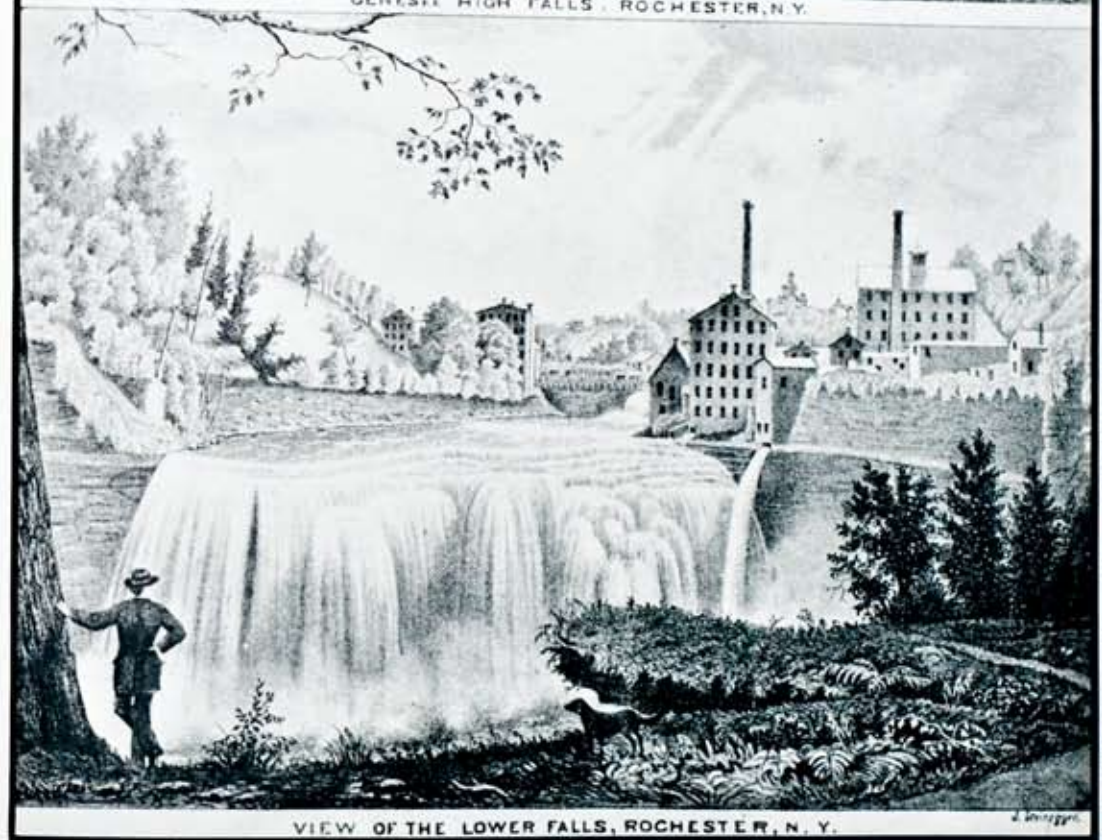
(Continued from Page 183)

as meals? That was the question. No definite engineering data could be found to guide the engineers studying this problem. They therefore used their "heads" and imaginations and planned the equipment accordingly. The results obtained are a compliment to their judgment. This installation consists of two ten horse-power refrigeration machines with a central air handling apparatus for supplying conditioned air the year 'round.

At Hershberg's jewelry establishment a ventilating system was installed about a year ago which supplies fresh air to the store. This Spring, summer-time air conditioning was installed by the Betlem Heating Company, using the Carrier Company's equipment. Cooling coils were added to cool the portion of air taken from outdoors and bring it down to proper temperature. Unit coolers were added within the room to secure the desired results. In a jewelry establishment, summer-time cooling is exceedingly important. Jewelry stands out and appears more alive and beautiful under intense lighting. If this desired light intensity is used, however, the heat given off by the bulbs becomes unbearable. Air conditioning eliminates this problem.



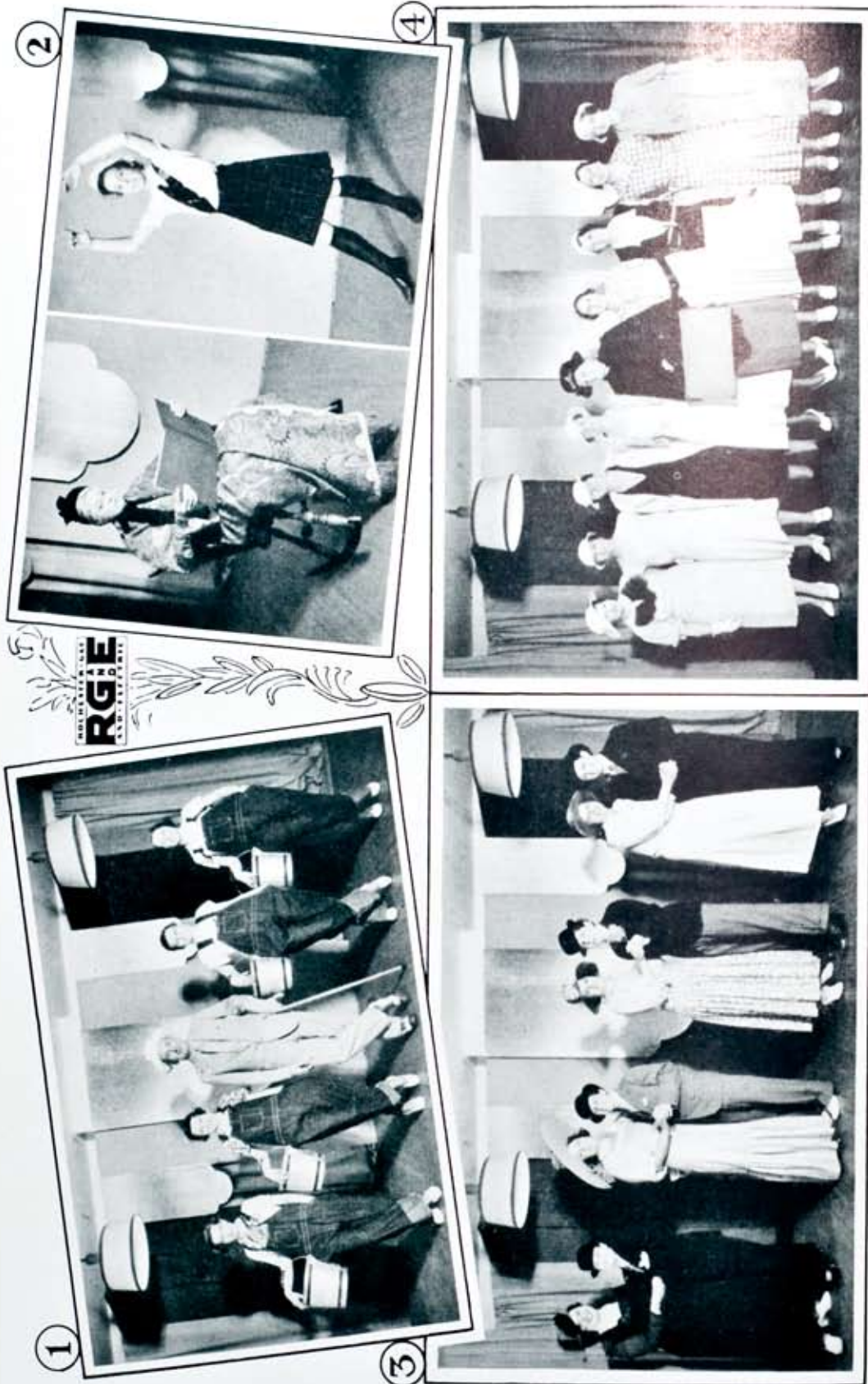
GENESEE HIGH FALLS, ROCHESTER, N. Y.



VIEW OF THE LOWER FALLS, ROCHESTER, N. Y.

Two unusual pictures of the Falls of the Genesee, copied from a rare old historical volume in the possession of Mr. Frederick Saddock, stores record department.





Left to right, persons in scenes are: Ann Rodak, Freda McAdam, Mr. Houston, Pearle Cole; Helen Smith, Mable Ducat; Bottom: Alice Spindler, Agnes Neidermaier, Evelyn Hering, Miriam Waltuck, Laura Yendes, Florence Bouchle, Virginia Coffey; Frances Cameron, Irene Strickney, Jessie Napier, Mary Marshall, Edna Crocker, Doris Rice, Grace Rockwood, Alvina Amalia and Katherine Robena.

## Combined R. G. and E. Choruses Make Merry at Chiselers' Camp

**C**ULMINATING their season of musical effort, the combined choruses of the Company enjoyed their yearly party at the Chiselers' Camp on the Genesee. Such a good time was had last year, that this year's party was enthusiastically awaited. A fine program of entertainment was given, which was so well received that Mr. Russell pressed the cast into service for the special entertainment at the final Friday Morning Meeting.

### Lots of Fun

After a delicious steak dinner prepared under the direction of Messers Vincent Hoddick and Ed Crofts, the minstrel show put on by the men opened the show with a parody on "Love Your Neighbor." Bill O'Brien then gave an inimitable performance. That Irish brogue coming from a blacked-up minstrel man was quite unique. It was a revelation to many that Gus Farese was such an artist with a guitar. These shows certainly do bring out the musical talent in the Company.

Mr. Houston acted as interlocutor, and Frank Dorkey divided end-man honors with Bill O'Brien. Frank could pinch-hit for "Amos" in that famous Amos and Andy team. None will ever forget the manner in which Tommy Weir did that old number "Only a Bird in a Gilded Cage." Bill Hughes showed that he could "take it" when bits of fun were shot his way wrapped up in flowers. The men's part of the show was well rounded out by the following persons who did their bits to the amusement of the audience: Messers Elmer Smith, Howard Brown, Chet Dupont and Jimmie Coyne.

A five pound box of chocolates was presented to Miss Mable Ducat, who so graciously and daintily danced Scottish numbers during the year at concerts given by the male chorus. Henry MacGregor played his bagpipes as usual, providing the music for the Highland Fling, Sword Dance, etc.

The women put on a great show, which had been prepared under the direction of Helen Smith, a past master of the art. "Tell us a Story, Grandma" was the title. It was a knockout. In it, grandma reads about interesting characters which we all recognized, and told about fishing exploits and other more or less personal happenings of Uncle Herman, Uncle Joe, Uncles Alec and Eddie and Uncle Freddie, who was also a great fish story teller. This skit was chuck full of laughs.

### Plenty of Comedy

Grandma also read about the old days of the Floradora Sextette which she had seen once while visiting New York. The sextette actually materialized, big hats and quaint dresses thrown in. And did they take the house down. Mr. Houston and a chorus did a song and dance number featuring the old song "Wait 'till the Cows Come Home." With overhauls and milk pails they presented a very bucolic appearance and could do wonders in stimulating interest in a "Back to the Farm" movement. "Fay Templeton" and chorus in "So Long Mary" and the "Pickens Sisters" provided colorful interest and real good singing, with parodies which brought smiles to every face, among them "Won't you Wait, Wait, Wait, Till the Gas Comes Back" and the "East Avenue Parade."



## R. G. and E. Choruses End Successful Season

THE members of the R. G. and E. Choruses have sung their swan song for the 1933-34 season. Practically speaking, they have carefully packed their voices away in moth balls until Fall. But even though quiet prevails along this musical front, the echo lingers on of more than twenty-seven concerts given in Rochester and vicinity.

With a final "Anchors Aweigh" at the Fairport High School auditorium, the musical show-boat of twenty-some male members took a bow and called it a day. It has been a strenuous season, with concerts about ever week, some of them at points quite some distance from Rochester. There has been lots of work, and plenty of fun, not to overlook all the dandy "eats" that appreciative organizations have provided. And though the song is done, as a plaintive lyric has it—the memory lingers on.

This memory is not confined to chorus members alone. A sheaf of warm letters of appreciation from churches, lodges, hospitals, granges and clubs echo the praise and thanks of listeners. A keynote in many letters was the expression: "We were more than pleased with the delightful concert and were impressed with the very apparent satisfaction which the singers were receiving in their numbers. They looked as if they were having the time of their lives in rendering us this service."

A letter from the pastor of a rural church had this to say: "While we were interested in raising funds to carry on church work, and you were interested in spreading good will, I feel that something else was accomplished, that is the appreciation of a high class musical program. We get so

much these days that is cheap, that when something clean and uplifting comes along, we can really appreciate it."

Choruses last season sang to greatly diversified audiences, ranging from sales conventions, clubs and churches to the children at Iola, the shell-shocked war veterans at the government hospital at Canandaigua, and the Neighborhood Blind Association. In some instances the music was merely to interest, please and stimulate audiences. Quite largely, however, the efforts of the chorus were planned to help raise funds for worthy purposes. Many a small rural church has expressed its sincere appreciation for the financial impetus thus created.

Chorus members really got their rewards from watching the faces of their listeners as well as from the all-around good times which these musical engagements created. However, in common with President Herman Russell, Director Frank Houston, President of the Chorus William Hughes and other officers of the club, get a decided thrill when they read such letters as the one written by the secretary of the graduating class of the Henrietta High School. This letter is presented herewith and speaks for itself. Just to know that the chorus possibly was the added impetus which decided between the success or failure of a Washington trip is enough to make up for any inconveniences of weekly practice periods throughout the year.

President Russell went along on some of the engagements of the chorus, and his presence was always a revelation to the audience. "How can the president of a large corporation," people seemed to query, "find time to

(Continued on Page 197)

Henrietta, New York  
March 18, 1934

Rochester Gas and Electric Corporation,  
Rochester, New York

Belated as this note of thanks may be, the underlying thought is not any less in its sincerity.

The Senior Class of the Henrietta High School wishes to express its appreciation to the "Chorus" who so generously gave of their time and talents to further the possibility of our trip to Washington this Easter.

The proceeds from this concert swelled our fund enough so that it made the difference between our taking the trip or remaining at home.

Indeed, we are grateful, and hope that some day, in some manner we may show our appreciation in a more concrete form than a mere "Thank you."

Our "thank you," too, to the pianist, Miss Horner and Miss Ducat, who added much to the program.

Sincerely,  
Berneice M. Wood,  
Sec. Class '34, H.H.S.



Thanks to the R. G. and E. Male Chorus, their fathers and mothers and Henrietta townspeople, these boys and girls of the graduating class, Henrietta High School, had their Washington trip. Photo taken just before they boarded the train. In the center back row is Mr. Van Horn, principal of the school. As "Schnozzle" Durante would say "What smiles, what a trip—it was stupendous."



## R. G. & E. Choruses

(Continued from Page 194)

visit our small church and honor us with his presence?" So, any way you want to look at it, the season of 1933-34 was a very successful one. As we see it, such an organization helps to humanize the vague picture many people have in their minds of what a utility is. After seeing how much fun the singers have singing for them, people seem to scratch their heads, smile and remark "They're just like you and me."

During the year the chorus sang to a total audience of approximately seven thousand persons, not including any radio performances. Requests for return engagements are already coming in, but this is a problem for the officers. The officers of the Male Chorus last season were: President, William Hughes; Director, Frank Houston; Ass't Director, Harry Taillie; Vice-President, Wm. O'Brien; Secretary, James Coyne; Treasurer, Harold Knoble; Librarian, Leonard Hahn. Officers of the Women's Chorus were: President, Alice Spindler; Secretary, Bertha Bauman; Director, Mr. Houston; Assistant Director, Edna Crocker, and Librarian, Gertrude Shippey. A vote of thanks is given to all who made the season so successful.

## Tests Show Value of Air Conditioning

Does office building air conditioning pay? The Philadelphia Electric Company set out to find their own answer to this question from a survey of two identical office spaces—one conditioned—one not conditioned. Tests just completed lasted two years.

Conclusions:—Lost time of workers due to respiratory illnesses was reduced an average of 45.4% in the conditioned space, representing a decrease

of 2.38 days per person or an amount estimated at \$11.90 per employee per year. This amount, Philadelphia Electric Co. states, "would justify an investment in air conditioning of \$61.97 per employee."

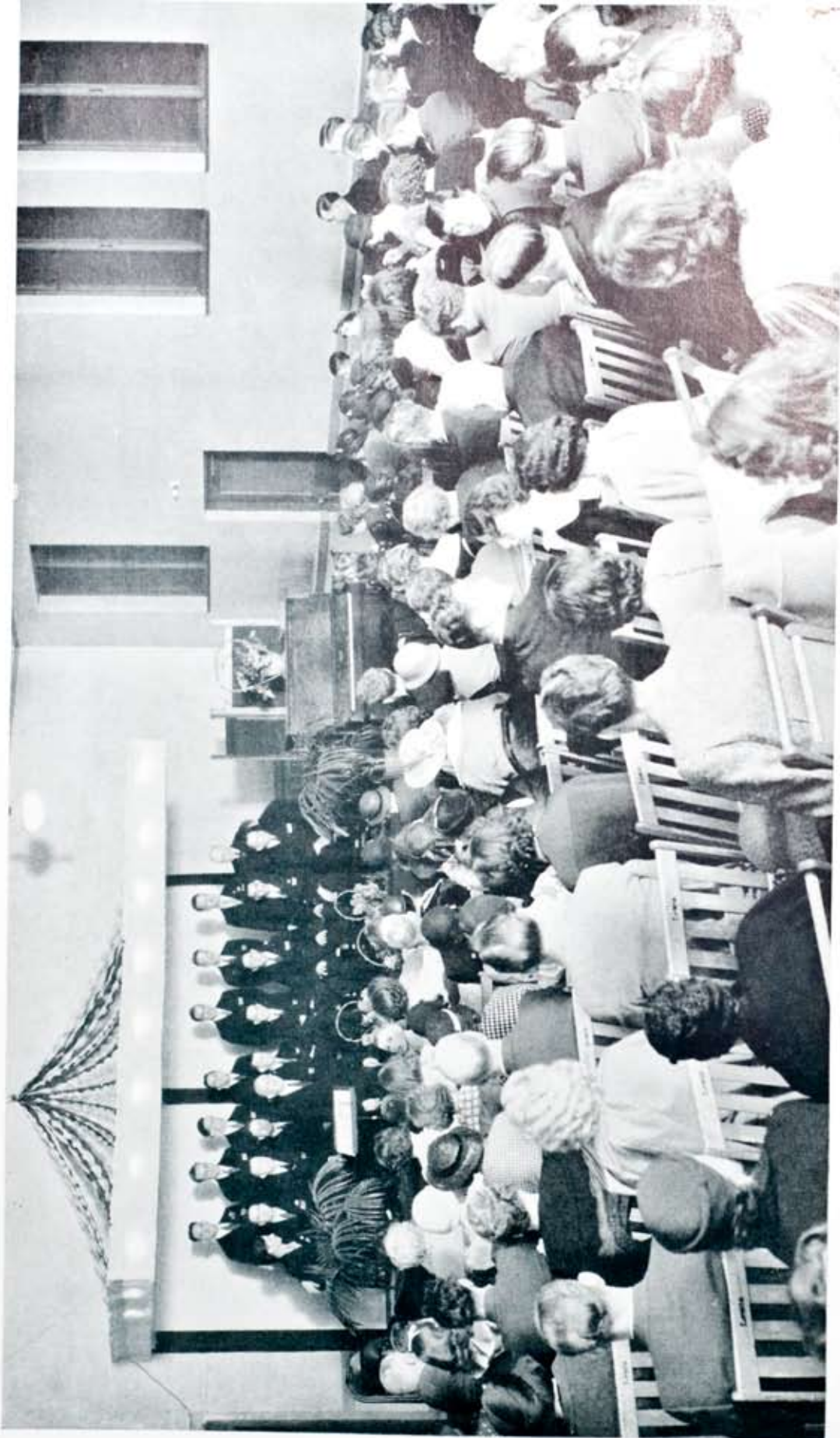
"In addition to these economies," says the report, "improved efficiency was noticed." Experimental data indicated that the increase in efficiency was approximately 4%. The owning and operating cost of air conditioning was approximately 0.5% of the payroll.

"Therefore," says the Philadelphia Electric Co., "we believe this increased efficiency of workers to be of even greater importance than the reduction of lost time."

—"Weathermaker News"



This dainty trio of song-birds rendered specialty numbers in the recent Friday Morning show, a special "hit" being "East Avenue Parade." From left to right they are the Misses Mary Martin, Bertha Bowman and Mildred Wood, all members of the Women's Chorus.



R. G. and E. Male Chorus gives concert at the Odd Fellows Hall, Charlotte, for benefit of the Charlotte M. E. Church. Last season twenty-seven concerts were given to a total attendance of approximately 7,000 persons.





# Fumes and Flashes

selected



### *Vas You Dere, Sharlie?*

The terrific heat is driving the crows to Ontario Beach in droves . . . (heading in Rochester paper).

### *For Better or—For Worse!*

How stunning! remarked the cave woman as her boy friend wooed her with a club.

### *Look Me Over!*

Professor—"Here you see the skull of a chimpanzee, a very rare specimen. There are only two in the country—one in the national museum, and I have the other."

### *Woe's Me!*

First convict: When John Bunyan was in prison it took him all his life to write one story.  
Second convict: That's nothing. It will take me fifteen years to finish one sentence.

### *Hole in One!*

A golf professional, hired by a big department store to give golf lessons, as approached by two women. "Do you wish to learn to play golf, madam?" he asked one.

"Oh, no," she said, "it's my friend who wants to learn. I learned yesterday."

### *Is My Comb Red!*

A poultryman tells us that the price of fresh eggs has been so low since the first of the year, that his hens, instead of cackling when they lay one, blush.

### *All's Well That Ends Well!*

"Mamma," said little Elsie, "do men ever go to heaven?"

"Why, of course, my dear. What makes you ask?"

"Because I never see any pictures of angels with whiskers."

"Well," said the mother thoughtfully, "some men do go to heaven, but they get there by a close shave."

### *. . . And Now, Kiddies!*

Recently an old negro who claimed to be "having symptoms," sought some medicine to make him feel better. The physician plied him with questions. Among other rather personal queries he asked:

"And how are your kidneys," Uncle Reuben?"

"Well, Doc, dey is all grown up now and some of 'em is married."

### *At Last!*

McDonald was recently run over by a beer truck and for the first time in his life the drinks were on him.

### *Comfort-Cooling!*

She wore her stockings inside out  
All through the summer heat;  
She said it cooled her off to turn  
The hose upon her feet.

### *Fair Enough!*

Adam was created first, so he would have a chance to say a few words.

### *A Real Test!*

"And do you love me so much that you would leave home for me?" she asked, her head on his shoulder.

"I love you so much," he answered, "that for you I would leave a baseball game in the ninth inning with the score tied, three men on base and two out."

### *Tough Spot!*

"FOUND—Lady's purse left in my car while parked. Owner can have same by paying for this advertisement. If she will explain to my wife how the purse got there, I will pay for the ad myself. Phone M123, League City."

### *I Remember the Face!*

Just before Will Rogers first met the late President Coolidge, one of Will's friends said: "I'll bet you, you can't make Cal laugh in two minutes."

"I'll bet he'll laugh in twenty seconds," replied Will.

Then came the usual introduction.

"Mr. Coolidge, I want to introduce to you Mr. Will Rogers."

"Glad to meet you," said the President.

Will held out his hand, looked confused, then said: "Excuse me, I didn't get the name."

### *Was His Face Red!*

In the congregation of an Oak Park church during Sunday morning service, was a young bride, whose husband was an usher. Becoming terribly worried about having left the roast in the oven, she wrote a note to her husband, sending it to him by another usher.

The latter, thinking it was a note for the pastor, hurried down the aisle and laid it on the pulpit. Stopping abruptly in the middle of his sermon to read the note, the astonished pastor was met with this written injunction:

"Please go home and turn off the gas."

# T H O U G H T S

*Break, break, break,*

On thy cold gray stones, O Sea!  
And I would that my tongue could utter  
The thoughts that arise in me.

*O*, well for the fisherman's boy,  
That he shouts with his sister at play!  
*O*, well for the sailor lad,  
That he sings in his boat on the bay!

*And* the stately ships go on,  
To their haven under the hill;  
But *O* for the touch of a vanished hand,  
And the sound of a voice that is still!

*Break, break, break,*  
At the foot of thy crags, O Sea!  
But the tender grace of a day that is dead  
Will never come back to me.

—ALFRED, LORD TENNYSON.





# "A Century on Parade"

BEGINNING August 11 at Edgerton Park, Rochester will be host to thousands of people for four weeks. One hundred years of progress will be celebrated with fitting ceremonies. Tickets are on sale for this big show which, among other features will present a huge dramatic spectacle "Pathways of Progress" on a gigantic open-air stage, with a local cast of 200 persons, 40 horses, stage coaches, automobiles, locomotives operating under their own steam, and other vehicles old and new.

¶ Dramatic episodes in Rochester's history will come to life, her growth and progress from a tiny hamlet at the Falls of the Genesee to an outstanding American city of today. A symphony orchestra, dancers and special scenery and stage properties will add to the charm of this spectacle. You will see the folks of yesteryear watching Sam Patch jumping into the Genesee, seeing their first canal boat and railroad train, watching the boys in blue marching off to war. The new amphitheatre will seat over 4,000 persons.

¶ Many other events of compelling interest will be staged, besides an array of exhibits showing Rochester's diversified manufacturing and industrial prowess. Plan to have your friends from out of town visit you during this fine show which is in every way worthy of the occasion it commemorates.

