

## The Mulkern Garage, Milwaukee, Wis.

The new garage of the Mulkern Garage Co., occupying a large part of the triangle formed by the intersection of Downer and Hackett avenues and Park place, Milwaukee, Wis., represents the most progressive ideas in garage construction that have yet been put in practice in Milwaukee.

Frank Mulkern is widely known as the "millionaire newsboy," who, coming to the "big city" of Milwaukee from a farm as a lad of twelve, made his way by selling papers, and today owns the largest retail newspaper selling business in Milwaukee. As a natural consequence of his newspaper business Mr. Mulkern branched out in various directions, one being to establish the first taxicab line in Milwaukee, and since its inception the largest and most successful renting business there.

Mr. Mulkern's partner, Mr. Annenberg, is also a recruit from the ranks of the street urchins who gave promise at eleven years of age of some day being a successful business man by his energy in selling papers. Today Mr. Annenberg owns and operates the largest wholesale newspaper and magazine business in Milwaukee, and when Mr. Mulkern conceived the idea of going into the garage business he did not look far for a partner, but was drawn to Mr. Annenberg.

### IN NEW RESIDENTIAL SECTION.

The Mulkern Garage Co. has gone "farthest north" into the new residential section known as the northeast side of Milwaukee, which has supplanted the old Grand avenue boulevard district, and is fast supplanting the later Prospect avenue boulevard district as the location of the most beautiful and best homes in Milwaukee. With the growth of the new territory, which lies along the north shore of Milwaukee bay on Lake Michigan, the coming

of the garage was inevitable. Public garages sprang up one at a time, each succeeding one going further into the district to satisfy the demand of closer proximity to the homes. Now comes the Mulkern garage, "farthest north," but still not an invader in the sense of encroaching upon a purely residential district, for the northeast side has its own little business district of stores and shops without which the residents could not long endure. In the heart of this little business district there has been erected this new garage, architecturally beautiful and in entire keeping with its surroundings. It has more the appearance of an apartment than a public garage.

### PART OF BUILDING PROJECT.

The Mulkern garage was built as part of a large building project which covers the entire triangle bounded by Hackett and Downer avenues and Park place. A six story apartment house covers the north end of the triangle. Just south is the garage, and at the south apex of the triangle is a three cornered shop or store building. At a passing glance the three buildings look like one, for the singular architectural style is carried throughout. The exterior is of a rich maroon firebrick, embellished with Bedford sandstone, surrounding a skeleton of reinforced concrete. Heavy fire walls separate the garage from the other two structures, and were it likely that the garage should suffer a conflagration the likelihood of communication to either the store or the apartment is considered negligible. Indeed, the building inspector of Milwaukee congratulated architect and builder on the splendid arrangement and construction, and the insurance men are pointing to the group as the most advanced representation of good design and structure in Milwaukee.

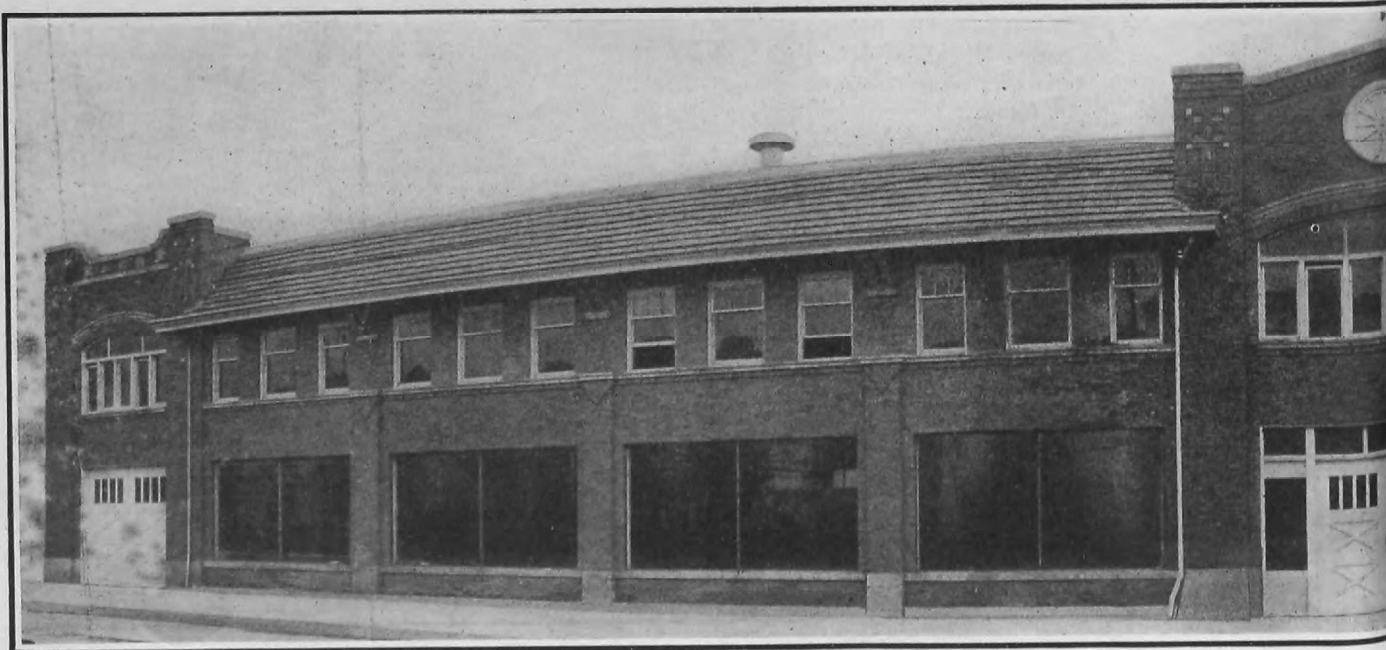
### ARRANGEMENT OF BUILDING.

The main frontage of the Mulkern garage is on Downer avenue, upon which it

runs for 216 feet. It faces the principal street railway line through the new district. Opposite is a string of stores and shops flanked by apartment houses, and here, too, the matter of architectural beauty is not forgotten. The garage is two stories high and has a uniform width of 60 feet throughout the entire length of 216 feet. The first floor is a vast expanse of plate glass. The second floor has many windows of smaller size, with a skylight covering one-half of the roof area. The office faces on Hackett avenue and is formed by the projection of the building at its southeast corner to meet that thoroughfare.

Approximately 31,000 square feet of floor space are afforded to garage, office and basement departments. The main floor is entered by three runways, located at the south, centre and north ends of the Downer avenue frontage. The centre runway is 20 feet wide and the other two are 16 feet wide. Four columns support the second floor, forming the only obstructions on the street or ground floor. The south runway leads either into the garage or into a hydraulic freight elevator, 21x11½ feet in size and of 7,500 pounds carrying capacity. By reason of the number and size of the runways it is never necessary for patrons to back out of the garage, for sufficient room and convenience is afforded to head a car out of the building no matter where situated.

The first floor is devoted exclusively to gasoline cars and the second exclusively to electric cars, including electric commercials. One hundred "gas" cars can comfortably be accommodated on the ground floor with a leeway of twenty cars. In addition, the first floor affords room for a handsome display space set off from the garage proper by fire walls. This is situated in the northwest corner and occupies a space of 30x27 feet. The display room has been leased for



THE MULKERN GARAGE, DOWNER AND HACKETT AVENUES



the time being to the representatives of the Waverley electric, but the Mulkern company expects sooner or later to engage in the sale of gasoline and electric cars and will then require the present tenant to vacate.

The repair shop is located on the extreme north end of the second floor and is accessible from below by a stairway behind the sales and display room. A heavy wall separates the shop from the remainder of the second floor, which, as stated, is devoted exclusively to electric cars and to dead storage. The stockroom is on the ground floor, just off the first entrance at the south and near the office. The second floor of that part of the building used for the office is divided into a rest room for chauffeurs, toilets, shower baths and telephone booths.

#### HEATING SYSTEM.

The building is heated by steam, the overhead piping system being used. The system has 15,000 square feet of radiation surface and is supplied from a private boiler plant located in the basement of the office part of the structure. The system also provides running hot water for every purpose. Electric lighting is used throughout, current for this purpose, for charging, etc., being provided by the public mains of the Milwaukee Electric Railway & Light Co.

Two regular municipal fire alarm boxes, one on the northwest and the other on the southeast corner of the block, and 200 hand fire extinguishers form the fire protection. The hand extinguishers are hung at intervals of 10 feet around the first and second floor walls. On each floor there is located a large box of sand to extinguish gasoline fires.

The four columns on the first floor are effectively used as "plugs" for water, compressed air and gasoline lines and switches for the lighting system. The columns are square, of concrete, with a hollow interior

through which the water pipe, gasoline pipe, air hose and electric wires are conducted and distributed to terminals in a manner that brings one connection on each face of the column. Thus three large washing spaces are provided; a car may be filled with fuel at four places; tires inflated at four places and the electric lighting system controlled in four divisions. There are two "free air" plugs at the curb between runways.

#### GASOLINE STORAGE.

Three Wallmann gasoline tanks, with a combined capacity of 1,000 gallons, are situated in an areaway behind the main garage, underground, and provide fuel of various specific gravities. The tanks are reached by the tank wagons from Park place, an alley running north and south behind the garage. Galvanized pipe leads are used from tanks to the first floor columns, where the fuel is conducted through Wallmann pumps, which automatically measure the fuel, to the car tanks through hose. Conveying gasoline in containers of any kind is strictly prohibited. Sales are recorded on the ordinary triplicate register, a dozen of which are conveniently located on the first and second floor and used for all purposes where employees are acting as sellers.

Oil is stored in two Bowser tanks of a combined capacity of 500 gallons, in two grades, light and medium. In addition, the company has a stock of the various trademark brands of oil for discriminating purchasers.

No elaborate stock of accessories and supplies is carried as yet, the size of this to be entirely dependent upon the demand. As is the practice among most of the big garage keepers of Milwaukee, good connections are made with the supply houses and supplies or accessories are furnished without any loss of time or undue delay by

requisition on the supply houses, the garage directly furnishing them without finding it necessary to carry a stock of any considerable size. A neat space has been partitioned off between the elevator and office entrance and a showcase in the centre of the office provides for the regular display.

#### WASH STANDS.

Four wash racks are provided on the ground floor, sufficient to care for all demands from gas car and electric owners. The concrete floor is so sloped that perfect drainage can be secured without building a raised rack. The rack nearest the elevator on the south end of the building is called the electric wash rack, the vehicles being run on the rack, washed and polished and then placed on the elevator for transportation to the second floor for storage and charging. At present four washers are employed, two during the day and two at night. In rush hours additional washers are hired. As rapidly as possible the force of washers will be increased to accommodate the demand. The company has a large clientele among owners who contract for storage and whose drivers do the washing and polishing. The use of nickel for bright parts makes the job of washing and polishing easy for one man. Hot water or any degree of warmed water is always available by reason of the steam heating system.

#### REPAIR DEPARTMENT.

The repair department has not yet been fully arranged and equipped, as the garage has been open only since April 10. Contracts have been placed for a number of tools, and electric drive with individual motors is employed throughout. While repair work will be carried on as required, it will be confined principally to patrons of the garage. The department occupies a space 45x60 feet at the north end of the second



AND PARK PLACE, MILWAUKEE, WIS.

floor. The employees of this department furnish most of their own tools, but a good equipment of special tools is provided in the regular stockroom, always kept under lock and key and in charge of a man who keeps a strict check on outgoing and incoming tools. Tools that are lost or stolen are charged against the man upon whose requisition they were given out.

No extensive equipment of tire repair tools and vulcanizers has as yet been installed. The company has arrangements with the tire companies, including the numerous factory branches in Milwaukee, whereby tire repairs requiring expert attention are sent out. Simple repairs are made on tubes and casings, however.

The repair work is facilitated by the use of 6-foot pits, two of which are located along the east wall of the main floor. These are principally for emergency and rapid work, including changing of oil, adjustment of universals, differentials, etc., when space is limited and parts can best be reached from under the chassis.

#### CHARGING INSTALLATIONS.

One of the best and most complete charging outfits in any Milwaukee garage is contained on the second floor of the garage, which, as already explained, is devoted to electric vehicles. The live storage capacity is 150 electric cars, and the charging capacity is fifty cars at one time. Twenty-five charging plugs are ranged along the east and the west walls, and are controlled from a large rheostat and switchboard at the extreme south wall, between the elevator and the street wall, receiving the light of day as long as it lasts. The charging plugs are of a new type, employing a universal coupling. The plugs are placed at a distance of six feet from the floor and the universal action of the joints in the fixed receptacles permits of the use of any one plug on three cars adjoining the one directly in front of the plug. This system obviates much of the danger of tearing out receptacles and plugs at the wall. The rheostat and switchboard are made by the Schaefer Bros. Co., and the plugs by Albert & S. Anderson Mfg. Co. The entire electric charging equipment, as well as the lighting system, was installed by the Milwaukee Electric Railway and Light Co.'s service department

under strong guarantees and maintenance clauses.

#### LIGHTING INSTALLATIONS.

The lighting system is ideal. Incandescent lamps of the Tungsten or Mazda type, of 100 watts, are ranged in three rows from one end of each floor to the other, furnishing splendid light at a minimum of danger. Each lamp is dropped from a neat fixture, and a large holophane shade adds to the brilliancy of the flame. The wiring installation is done according to the most advanced and approved practice by the railway and light company's experts, and the liberal use of conduits, junction boxes, etc., reduces the fire hazard to a minimum.

The care, repair and maintenance of storage batteries for electric vehicles is made a specialty, and two experts are in charge of the battery room, which is set off adjoining the regular repair shop. For the benefit of customers and patrons facilities are provided for charging 6-volt ignition or lighting batteries. Twenty-five of these may be accommodated at one time.

The entire second floor is unobstructed by pillars or columns, facilitating the ingress and egress of electric vehicles. The roof is supported by steel trusses 60 feet long, extending across the building. The skylight above the trusses is 30 feet wide and 187 feet long, and is brought to an apex to derive the greatest possible amount of daylight.

On the first as well as the second floor is a range of steel lockers for the accommodation of patrons. There are 100 on the first floor and 150 on the second floor, and the owner of the locker receives all of the keys so that there may be no opportunity for thefts by employees or others.

#### WELFARE WORK.

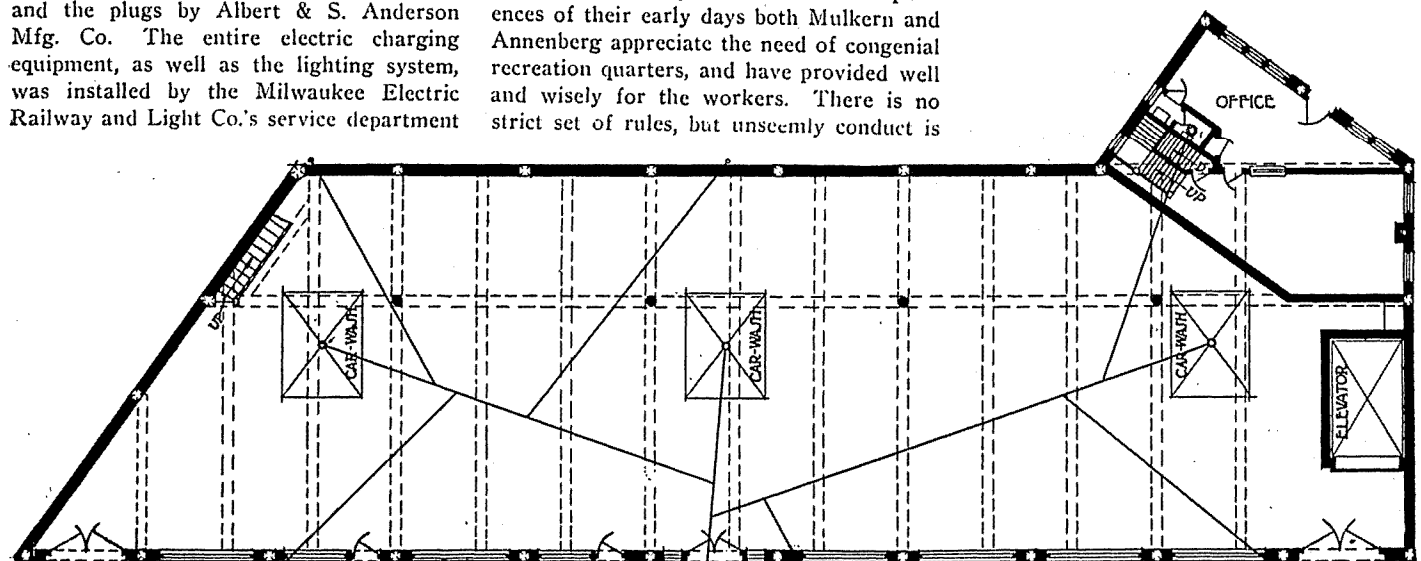
The comfort and convenience of employees and chauffeurs are well looked after. The entire second floor of the office part of the building has been made into a clubroom, equipped with shower baths, toilets, cardroom, lounging room and telephone booths. By reason of the experiences of their early days both Mulkern and Annenberg appreciate the need of congenial recreation quarters, and have provided well and wisely for the workers. There is no strict set of rules, but unseemly conduct is

penalized by deprivation of rights to use the clubroom. The owners are supported in their welfare work by patrons of the garage, and reports as to the conduct of chauffeurs are made at frequent intervals to their employers. While card playing is encouraged, gambling is prohibited under severe penalties.

#### CHECKING SYSTEM.

The Mulkern Company has not been able to complete its garage organization down to the final and ultimate details, because the building was turned over to the company as late as April 1 and opened to the public on April 15. Not all of the equipment has arrived, and, of course, it is impossible to carry out plans until the material does arrive and is installed. This means, for one thing, the checking and accounting systems. An elaborate electric time clock system, by means of which cars will be checked in and out, drivers reported on and off duty, etc., is a new feature which will not be ready for operation for some weeks. The company guards against the theft or misuse of cars given into its hands for storage, charging or washing, by depending upon reliable floor superintendents on duty during the twenty-four hours of the day. The electric time clock system will later form the effectual preventative.

The company intends to conduct a purely garage business, although it is the intention to go into the car selling business later. Renting and taxicab service will not be undertaken. Mr. Mulkern, as already explained, owns and operates the largest taxicab and renting service in Milwaukee, but this will continue to be his personal affair and will be conducted from the present quarters at Grand avenue and Third street, with a garage at Eleventh and Wells streets. So far as the new garage is concerned, it will have for its objects the storage, care and repair of gasoline and electric vehicles, and nothing will be undertaken which would interfere with the proper and satisfactory conduct of this class of garage



FIRST FLOOR PLAN OF MULKERN GARAGE CO., MILWAUKEE, WIS.





EXTERIOR VIEW OF THE GARAGE AND SALESROOM OF THE HAWKINS-HALFF CO.

business. The sale of cars later will be in the hands of a sales organization within the present organization.

#### ACCOUNTING SYSTEM.

While the accounting system has not been fully organized, it will take into consideration the factor that the chauffeur is the man who is in the large majority of cases doing the buying, and a strict check must be kept so the owner of the car or cars receives his just due. Sales of gasoline, oils and other supplies are recorded on the triplicate registers. The original copy is given to the bookkeeper, one copy to the chauffeur and the third is mailed to the owner at the end of every month with his statement of account. It is, then, "up to" the owner to see that the slips which his chauffeur hands him tally with those submitted by the garage company.

The office, while practically separated from the garage proper, is so situated that the occupant of the office is enabled to view the entire first floor. It would be

difficult for unscrupulous employees to "get away with anything." It is a strict rule that all cash payments must be made by purchasers at the office, and the employees handle no money. Gasoline and oil in tanks is checked up at least weekly, and generally twice a week, and compared with the sales sheet.

The office force consists of an office manager, a bookkeeper, assistant bookkeeper, stenographer and handy man. Messrs. Mulkern and Annenberg divide their time between their other businesses and the garage, it being so arranged that during the day one of the owners is constantly "on the job." The general system has not been fully developed, nor are any of the present arrangements permanent, it being the desire of the owners to work out a system based on experience, and the business has not been established long enough at this time to enable them to lay out plans that will govern for years to come. Permanency of plans will be arrived at just as rapidly as possible, however.

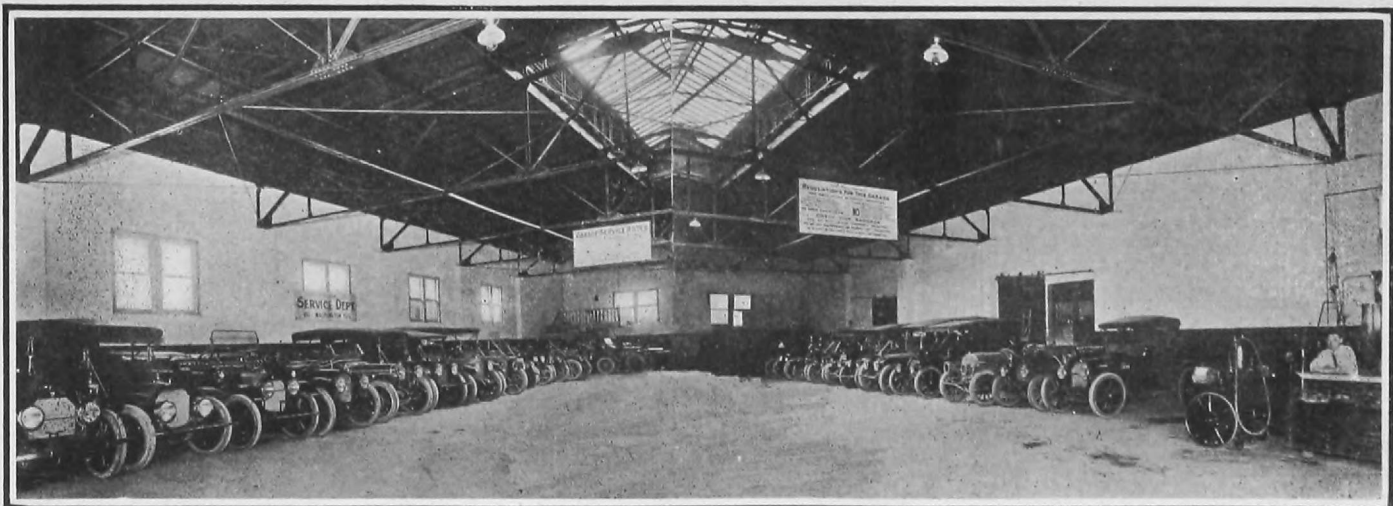
## The Hawkins-Halff Salesroom and Garage, Houston, Tex.

HOUSTON, Texas, April 25.—Housing facilities for privately owned motor cars were very inadequate in Houston up to eight months ago. Prior to that time dozens of owners were daily wrestling with the vexatious problem of what to do with their cars when not using them. While this question was giving the owners something to think about, several new garages were in process of construction. Since their completion, and formal opening, there have been ample housing facilities for autos in this southwestern metropolis—not only sufficient room, but also a guarantee that none but intelligent and competent men are to handle the cars.

Today there are in Houston more than 2,500 pleasure cars in daily use, together with a liberal number of commercial wagons. There are very few private garages, so, of course, the public garage is in great demand. The most pretentious of these is that owned by the Hawkins-Halff Company, fronting 85 feet and extending back to a depth of 65 feet from a crosstown street, just five blocks from the actual heart of the business district. George H. Hawkins is president; J. C. Halff, vice president, and Cecil H. Hawkins, secretary.

The entrance to the garage is less than 80 feet distant from the main artery connecting the best residential section of the city with the business district. Such a selection of site followed careful study of local conditions and needs. The owners believe the site occupied is the most logical for garage purposes.

The garage proper presents a most attractive view from the street, because of its distinctively modern design and style of architecture. The building is of brick and steel construction throughout, fireproof, and stands out conspicuously from adjacent buildings by reason of having no posts or supports extending from floor to ceiling. Opening directly over the main floor are skylights. Along either side are expansive



INTERIOR OF HAWKINS-HALFF GARAGE.





HAWKINS-HALFF SALESROOM.

windows. Additional windows are in the rear.

The Hawkins-Halff Co. departs from the practice of practically all other garage companies of Houston, by keeping its room clear of "dead" storage. All that is not "live" is removed, and housed in an auxiliary garage in another portion of the city. In case of an overflow at the main place of business the auxiliary comes in handy. The firm maintains a service shop at its second plant, with free shop room for the use and convenience of garage customers. No heating apparatus is necessary, as the climate is so uniformly temperate that artificial heat is seldom required.

Ample precautions to guard against fire have been taken. At either end and along the sides of the garage extinguishers are in place. From time to time the employees of the garage are put through fire drills, much like the pupils in grammar schools. All of the men have been taught what to do, and how to do it, should fire break out.

The stockroom is directly beneath the salesrooms, which immediately adjoin the garage. The stockroom is lined with repair bins on one side. On the other side it is equipped with shelving for accessories. The floor space in this room is 3,000 square feet. Supplies and accessories valued at \$15,000 are carried. All supplies are carefully checked in, and are carried upon a perpetual inventory. A written order is required by the stockroom manager from a department head before he permits the removal of any article, no matter whether it be a new tire or a small roll of tire tape.

Gasoline is stored in an underground steel tank of 800 gallons capacity. It is necessary to refill the tank each twenty-four hours. After gasoline has been taken from the tank it is conveyed to machines on rubber-tired wheel tanks. Tab is kept upon the sales, and the amount of gasoline taken from the underground tank by means

of a registered check attached to each wheel tank.

Five automatic measuring tanks, each with a capacity of fifty gallons, hold the oil supply. Each tank contains oil of a different grade. The system of checking oil sales is practically the same as that which governs the handling of gasoline. Mr. Hawkins has tried to make them correspond as much as possible.

The floor in the rear of the garage slopes toward drains, thus affording facilities for the washing of cars. Suspended from the ceiling are two automatic washers. Two movable floor stands, each equipped with lights and reflectors, are used for lighting purposes on the washing floor. Nearly all of the time five washers and polishers are looking to the formation of a Massachu-

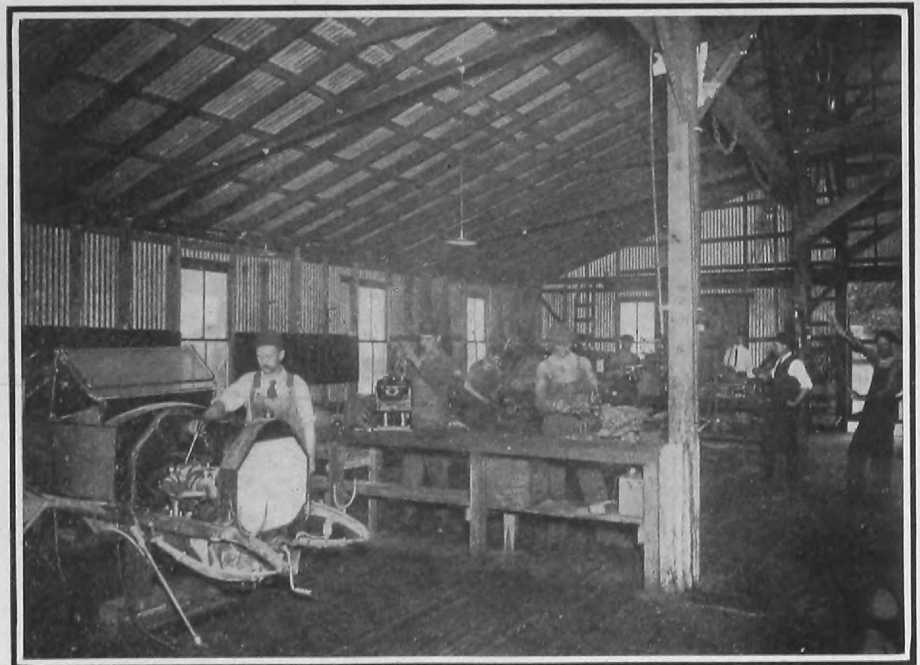
washed it is backed off the rack and placed upon level floor, where the polishers do their work.

The machine shop is equipped with a lathe, drill press, boring machine and electric drills. Power from a five horse power motor is transmitted to the machines. Besides these there are several modern appliances designed especially for auto repair work. An expert auto-machinist is in charge of the repair room. An automatic air compressor is installed.

There is a room opening upon the garage which is set apart for the convenience of motorists with baggage. Such an accommodation is highly appreciated, for Houston occupies a central point in a territory that is widely traversed on cross country runs from Beaumont, which is eighty-four miles to the east, from Galveston, fifty-two miles to the southeast, from Port Arthur, Orange and smaller points. Arriving at the garage the tourist finds lockers, but if he does not deem them necessary he may check his baggage by the day, week or month.

The chauffeurs' gallery, just above the main floor, is provided with a telephone, comfortable furniture, and two tables that are kept liberally supplied with all the current magazines and all the publications devoted to the automobile. On shelves along the walls are works dealing with automobile machinery. These are often used by the chauffeurs and mechanics for reference. Dominoes and checkers are permitted in the gallery, but smoking is not countenanced.

As soon as an automobile has been put in its proper place the chauffeur is expected to go to the gallery. No loafing on the floor or in a car is tolerated. Neither can repair work of any description be done upon the garage floor. Another rule pro-



ASSEMBLING ROOM, SERVICE DEPARTMENT.