possess a certain alertness, which appears to make them more intelligent than other negroes. Such is their woodcraft, that they seem to have the power to appear and disappear like the elves themselves. They are even said at times to steal the children of the bigger negroes, leaving in place of these their own weazened offspring. Some truth is lent this by the appearance, among the little people, of blacks of normal size and feature, though these may be fugitives from the tribes of other negroes. They are shy to a degree, and it is almost impossible for a stranger to approach them. This can only be accomplished through the mediation of a member of some tribe of larger blacks, with whom the little people have entered into friendly relations. Once their confidence has been obtained, they may be studied with less difficulty, though even then it is hard to get a closer insight into their lives and pursuits.

The existence of the pygmies is of the rudest; they do not practise agriculture, and keep no domestic animals. They live by means of hunting and snaring, eking this out by means of thieving from the big negroes, on the outskirts of whose tribes they usually establish their little colonies, though they are as unstable as water, and range far and wide through the forests. They have seemingly become acquainted with metal only through contact with superior beings, and their weapons were formerly of wood or stone only. They live in little conical huts about four feet high and four feet in diameter, constructed by thrusting withes in the ground, tying them together at the top, and thatching with leaves. Each man usually has but one wife, the couples housing together in a single hut, but as soon as a child leaves the mother's breast a separate hut is constructed for it, and as we can imagine, some of these are absurdly tiny. The women are said to be affectionate and make dutiful wives, sometimes marrying into the tribes of the larger negroes.

The dwarfs have no separate language of their own, but speak, roughly, the dialects of the neighboring tribes of large blacks. Their intonation is musical, the pronunciation sharp and staccato. They learn other languages with ease, and are admirable mimics. They are fond of dancing and singing, their songs being frequently decidedly musical. Their dances are extremely grotesque and ludicrous, and are usually executed to the sound of their one musical instrument, a drum formed from a section of a hollow tree, covered with hide. Their only æsthetic ornament consists in having two holes pierced through the upper lip, into which they insert flowers, teeth, or porcupine quills. While in the forests, they are usually absolutely unclothed, but they adopt sufficient covering for decency when they come into contact with others.

The pygmies appear to be divisible into two types, one with reddish or yellowish-brown skin and a tendency to red in the hair, and the other black-skinned with black head-hair. The original type may have been the red one, and, mingling with the first negro invaders, have produced the black dwarfs. The black type is slightly larger, the tallest individual remarked by Sir Harry Johnston being five feet tall. According to the measurements of Johnston or his assistants, the average height of the men is about four feet seven inches, while that of the women is four feet two inches. The face is prognathous, the upper lip long and not everted as much as in other types of negro, the chin weak and receding. The nose is broad, the wings large and prominent, the bridge very low. The neck is short, the head sunk between the shoulders, while the legs are short also, the feet large and turned in, the great toes having a tendency to separate from the others. The pygmies are fairly hairy, and sometimes have beards of considerable length. The body hair is of two kinds, one a survival of the yellowish-brown fœtus hair common to all men, and the other a fairly thick growth on the chest and stomach.

Many attempts have been made to bring members of these dwarf tribes to civilized countries, but these have almost uniformly failed, because of the reluctance of the little blacks to leave their native forests. Within recent months, however, a number of the pygmies have been brought to London, where they aroused great interest. The accompanying engraving shows a group of the dwarfs on shipboard while traveling from Africa to Europe.

August Number of American Homes and Gardens.

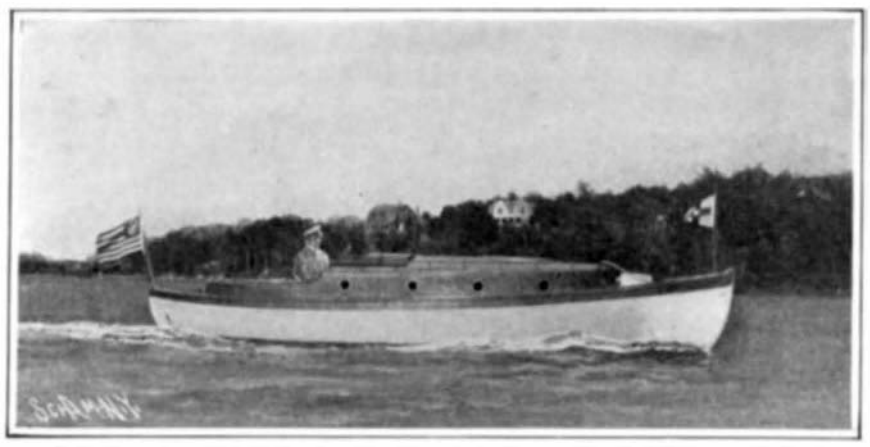
The August number of American Homes and Gardens—the second issue of the new series of the Scientific American Building Monthly—fulfills and improves on the promises made in the July number. The splendid house built on the Wissahickon near Philadelphia for the late Mr. C. W. Bergner is illustrated and described by Barr Ferree, together with half a dozen other houses, most of which are abundantly illustrated with plans and interior views. George E. Walsh contributes an interesting paper on "Angoras for Pleasure and Profit"; Enos Brown reviews some of the latest and most important work of Mr. Burbank in a paper entitled "Luther Burbank and Plant Breeding"; Walter A. Dyer writes suggestively on "The Nursery in America"; Joy Wheeler Dow continues his series on "Principles of Home Decoration"; and A. Russell Bond has a strong article on "How to Make a Camp in the Woods." Other articles comprise a discussion of the relationship between the arts and the house, and the first part of a valuable paper on "The Architect and His Charges." The Departments include "The Garden," "The Household," "Civic Betterment," "Science for the Home," and "The Observer" makes his first appearance with some shrewd and entertaining notes on "Suburban Development." "New Books," "Fifty Suggestions for the House," an article on "Cyanide Fumigation," and other timely papers make up a strong and valuable number of this fine magazine.

Many readers state that American Homes and Gardens is the handsomest of the monthly magazines. The interest of the illustrations and the fine printing of the August number amply justify this statement.

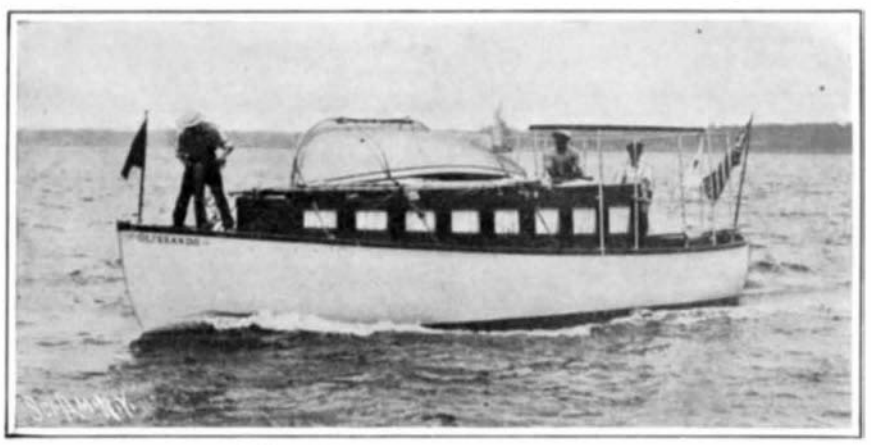
AMERICA'S FIRST LONG-DISTANCE MOTOR-BOAT RACE.

The first long-distance race for power-driven boats which has been held in this country took place on July 22, 23, and 24, over a course some 325 miles in length, extending from College Point, N. Y., through Long Island, Block Island, Vineyard, and Nantucket Sounds, and around Cape Cod to Marblehead, Mass. The race was for boats under 40 feet in length, each of which was required to carry a crew of four men and a full equipment, consisting of rope, oars, bucket, compass, charts, lead line, cushions, blankets, cooking outfit, water, and provisions for a five days' cruise, and lastly, a life preserver for each member of the crew. One member of the crew of each boat could be a paid hand, but this must not be the pilot. The race was run under the auspices of the Knickerbocker Yacht Club for a cup offered by The Rudder. The boats were entered under the rules of the American Power Boat Association, and various time allowances were given. Twelve boats crossed the starting line in 1½ minutes at noon on Saturday, the 22d ultimo. The largest of these, the "Blink" (which was 40 feet long over all and 36 feet on the waterline, with a beam of 8 feet and a draft of 2½ feet) was the scratch boat, while the "General Bumps" (having a length over all of 28 feet, a waterline length of 26½ feet, a beam of 6 feet 8 inches, and a draft of 1 foot) was the smallest, and was given a time allowance of 14 hours, 36 minutes, 32 seconds. This boat had an 8-horse-power, twin-cylinder Grant-Ferris motor, while the "Blink" had a 30-horse-power, four-cylinder Buffalo engine. Five of the remaining boats were about 39 feet in length, and the remaining five about 32 feet. The highest-powered boat in the fleet was the "May," which was a very handsome 38-foot cruiser fitted with a 50-horse-power, four-cylinder New York Kerosene Oil Engine Company's motor employing as fuel ordinary kerosene sprayed into the cylinder and ignited by an electric spark. The "Talisman," entered and run by its owner, William Saville, of Boston, represented the simplest type of cruiser, being fitted with an 8-horse-power, single-cylinder, Murray & Tregotha engine having an 8-inch bore and 10-inch stroke and consuming about 1½ gallons of gasoline per hour. This boat, which turned out to be the winner, was 32 feet 8 inches long over all, 29¾ feet on the waterline, 8 feet 7½ inches beam, and 2 feet 1 inch draft. She had the greatest time allowance of any in the race, this being 16 hours, 44 minutes, and 19 seconds.

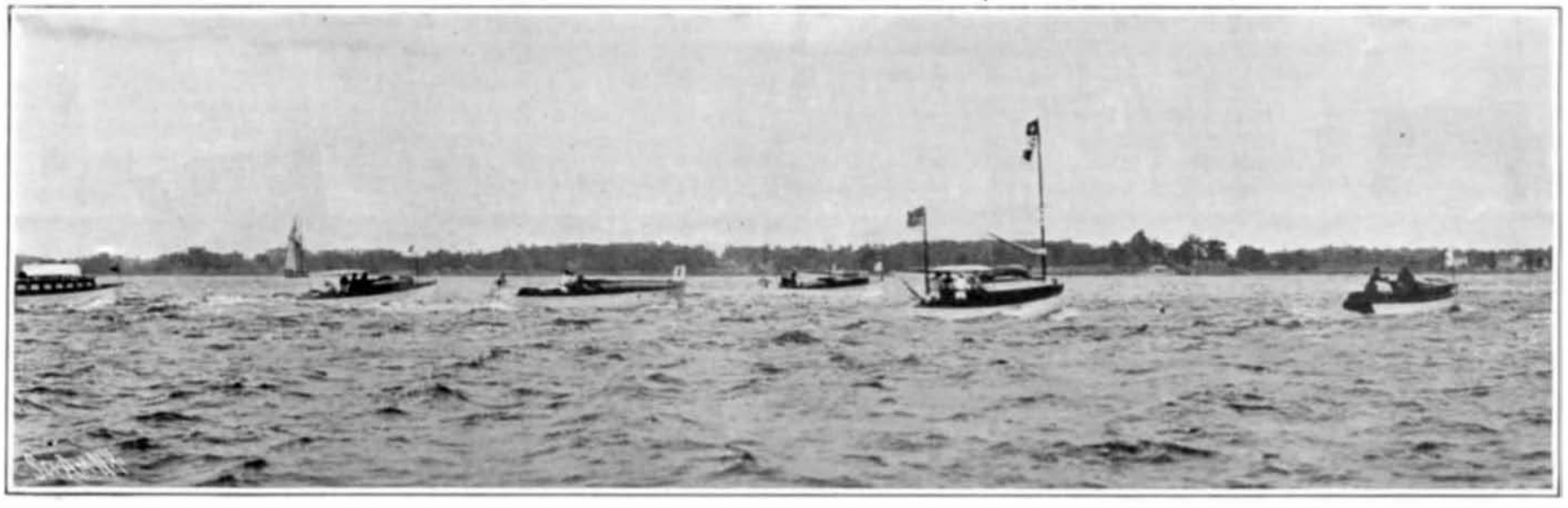
The boats had good weather during the first ten hours, but notwithstanding this, several of them de-



"Talisman," the Winner. Average 6½ Knots, or 7½ Miles an Hour.



"Glissando," Which Won the Second Prize on Time Allowance.



Start of the Race at College Point. The Course Was Some 325 Miles in Length, Extending from New York City to Marblehead, Mass.

THE FIRST LONG-DISTANCE RACE FOR 40-FOOT MOTOR BOATS OF THE CRUISING TYPE TO BE HELD IN AMERICAN WATERS.

veloped troubles that delayed or stopped them. The "Igniter," a 32-footer equipped with a 15-horse-power, four-cylinder Buffalo engine, developed a broken thrust bearing (which was of the ball-bearing type) before she had gone 40 miles. By putting in at Norwalk, the crew got the bearing repaired and afterward ran as far as Plum Island, when cracks in the thrust collars developed again, and they were obliged to give up the race. The "May" also dropped out of the race at New Haven, on account of trouble with her clutch.

During Saturday night and Sunday the boats encountered a severe easterly storm, which caused several of them to put into the nearest harbor and wait for the weather to moderate. Among the boats that withdrew during this part of the race was the "Em Bee." The first boat to appear at Cottage City, Mass., was the "Blink," which arrived at 9:30 Sunday morning. The "General Bumps" arrived at 1:40 P. M., and left a half hour later. As this boat was passing out of the harbor "Talisman" came in, and reported sighting several boats anchored along the Rhode Island shore. As no more of the leaders arrived before dark, it was apparent that the average time made by the winner would be slow. The "Aquila" was obliged to put into Vineyard Haven on Sunday afternoon because of weak batteries. These were replaced, and she left at 5:50 P. M.

The first boat to appear at the finishing point opposite Marblehead was the "Talisman," which, it will be remembered, had the biggest handicap and the lowest rating of any of the craft. She crossed the finishing line at 9:24:56 A. M., having made the run of 280 nautical (322 statute) miles in 45 hours, 24 minutes, and 56 seconds. During all this time the engine had been kept running without a single stop; and, although the boat stopped a few minutes at Cottage City to report, it had immediately resumed the race, and fought its way against a head wind and heavy sea around Cape Cod and northwest to Marblehead. Not until after passing Highland Light at 2:10 A. M. Monday morning did the wind shift from dead ahead, at which point it had been for more than twenty-six hours. Although this made the course somewhat easier, the weather was still very rough, and the wind, striking the boat aslant, drove the spray in cutting sheets over its occupants. While crossing Massachusetts Bay a heavy fog was passed through. Despite this long journey through the various sounds along the coast and around Cape Cod in the Atlantic Ocean during a heavy gale, the staunch little "Talisman" showed but little the effect of the tremendous tossing she had received during the greater part of her trip. The putty was squeezed out of her forward seams, but she did not leak, and the only damage she sustained was to her steering gear. A rope broke, and a temporary iron tiller was used while repairs were being made. That the little boat could maintain an average speed of 6½ knots (7.49 miles per hour) under the severe weather conditions encountered is truly remarkable, and is a thorough demonstration of the great seaworthiness and reliability of the American launch or motor boat, as it is nowadays termed.

The second boat to finish, the "Blink," reached Marblehead at 5:27:10 Monday afternoon, or 8 hours, 2 minutes, and 14 seconds after the "Talisman," which, if her time allowance is considered, beat the larger boat by 24 hours, 46 minutes, and 33 seconds. Rough weather on the shoals and trouble with her muffler, which became disconnected in a heavy sea, caused the "Blink" to put in at Hyannis, where she lay several hours during Sunday night, and was passed in the meantime by the "Talisman." The third and fourth boats to finish were the "Aquila" and the "Glissando," which arrived within four seconds of each other, the former at 7:30:08. The latter boat, because of her time allowance of 10:37:56, won second place from the "Blink" by 8 hours, 34 minutes, and 58 seconds, and was awarded the second prize.

The fifth and last boat to finish was the "Woodpile," which crossed the line at 2:48 A. M. July 25. This was one of the two boats equipped with a two-cylinder, two-cycle motor, all of the others having motors of the four-cycle type. Although less than half of the contestants finished, the race may be considered a success, as most of the boats which failed did so on account of minor troubles, and not because of unseaworthiness or badly-operating motors. While most of the boats were new this year, and specially built for the occasion, the winner is a year old, and was built for her owner to be used as a comfortable family cruising boat. The great seaworthiness of this type of boat, and the entire practicability of its use in the roughest weather, stamps it as a type far superior for comfort and for every-day use to the high-powered freaks, such as tried to cross the Mediterranean last spring with such disastrous results. That a boat of this kind can live in the open sea during a storm, shows the entire practicability of equipping our life-saving stations with motor life-saving boats, and it is to be hoped that the government will soon take some steps in this direction.

A new type of coupling for railroad cars has been devised by Mr. Edward Watson, of Glasgow, and some interesting demonstrations were recently carried out therewith. The coupling comprises two similar steel castings, one fixed to each car and projecting from the center of the ends of the wagon, and limited as regards side and end motion due to buffing shocks by springs in the usual way. Each coupling has two catches with taper faces. When the cars meet, the pressure between the opposing faces causes a partial rotation of the coupling. This allows the catches to engage with each other, and the vehicles are locked together. The coupling heads are absolutely devoid of pivoted catches, springs, and other such devices. The heads may be unlocked by raising a lever on each side of the train, and return automatically to their working position as the wagons separate, if required.

RECENTLY PATENTED INVENTIONS.

Electrical Devices.

SAFETY SIGNAL SYSTEM. — F. V. KING, Winslow, Ariz. Ter. Train and engine men sometimes forget that they have to meet and pass another train at a point on the run and run past and collide with the other train. The object of the inventor is to provide mechanism whereby when the predetermined point has been reached a signal will be operated in the cab or car, so that the conductor's or engineer's attention will be called to the order received from the train-dispatcher at some station back on the road, whereby he will again read his order and be prevented from passing such predetermined point without carrying out such order.

Of Interest to Farmers.

FOLDING COOP.—R. YOAKUM and P. C. MCKEE, Houston, Texas. The invention relates to folding coops used for the transportation of poultry, such as live fowls, from one point to another by boat or rail, and has for its object to provide novel details of construction for a folding coop which render it very substantial either when erected for service or when folded into a compact package and enable the production of the coop at a moderate cost. The invention affords convenient means for supplying food and water and to keep these clean in transit when a number of these coops with poultry are piled in tiers in cars or vessels.

HARVESTER. — J. W. BURTLESS and J. W. LITTLE, McCook, Neb. This machine operates advantageously in cutting and loosening the earth and turning away a portion at each side of the row by the disks, which relieves the scoop and prepares the beet to be readily freed from the soil; in maintaining position of the beet until grasped by the conveyers, preventing its presentation to the cutters in a wrong position; in the automatic adjustment of cutters by the gage, which compels a fixed depth of cut, without regard to position of beet, and in ready adjustment of all operating parts and their adaptability to varying conditions.

HAY-RETAINING DEVICE FOR STACKERS.—J. O. MCCREERY, Fort Morgan, Col. This device has a fixed position relative to the carrier-teeth of the stacker, the rake-teeth being adapted to pass over the device when depositing hay on the carrier-teeth, and the device has tension-controlled fingers automatically depressed as the rake-teeth pass over the carrier-teeth to deliver their load to the latter and which fingers automatically rise at the back of the load of hay prior to the withdrawal of the rake-teeth, so that when the latter are withdrawn from the carrier-teeth no portion of the load is withdrawn.

Of General Interest.

TROUSERS-RETAINER.—S. REITER, Jersey City, N. J. One feature of the invention is to provide a belt or elastic strap which follows the exterior of the trousers at the waistband, extending along the back of the waistband, being attached at its extremities to the forward suspender-buttons, so that while the trousers are held up by the device in a comfortable manner no severe pressure is brought to bear upon the abdomen.

RAZOR.—C. L. GIRARD, Little Valley, N. Y. This implement belongs to that class known as "safety razors," and the purpose of the improvement is to provide a razor of the usual form or type in which instead of the blade being an integral portion of the shank a shell is directly connected with the shank, having the customary cross-sectional and longitudinal shape of an ordinary razor-blade, while the blade is made very thin, with straight side faces, and is mounted for movement in said shell to and from its back and open front edge.

SHIPPING-PACKAGE. — A. FONTS, New York, N. Y. This improved shipping-package is more especially designed for safely shipping fresh tomatoes and like perishable products from a warm climate to a cold one and for distributing the products in the cold climate to retailers during the winter season, to prevent freezing of the products while in transportation, or distribution.

PNEUMATIC PILLOW.—L. F. DOELLINGER, Des Moines, Iowa. In this instance the invention refers to pneumatic pillows and the like, Mr. Doellinger's more particular object being to provide means for readily inflating it. These means very conveniently and quickly insure the operation of inflating, deflating and folding. The pump is a portable affair forming practically a part of the pillow and is preferably left in position while in use. When the pillow is in use the pump is concealed.

COPY-HOLDER. — J. COOK, Oelwein, Iowa. This holder is of that class used by the operators of type-writing machines for holding notes or copy which is being transcribed. The object of the invention is to produce a device of simple construction which is especially adapted for holding copy of all kinds in a simple manner. A feature is the extensibility of the device and the simplicity of its construction to facilitate its easy operation.

FRAMELESS AWNING.—S. C. CROWE, Boston, Mass. The chief objects of the invention are to do away with the frames that are ordinarily used and to provide means for efficiently and effectively operating the awning-cover to open and close it. These objects are accomplished by substituting movable bars for the frame and employing a system of flexible connections for manipulating the bars and cover.

CHEESE-CUTTER.—B. BLOOD, Cœur d'Alene, Idaho. In the present patent the invention is an improvement in cheese cutters, and relates particularly to the devices in connection with the knife whereby to indicate accurately the amount of cheese to be cut from any bulk to secure a slice of any desired weight.

COUNTER-GUARD.—J. S. AUERBACH, New York, N. Y. In this case the improvement has reference to counter-guards, the inventor's more particular object being to provide a type of guard which can be used for supporting transparent plates over a counter, so as to protect candies or other merchandise and to enable the same to be displayed to advantage.

ARTIFICIAL UPPER DENTURE. — L. L. WHITE, Portland, Ore. The invention relates to dentistry, and its object is to provide certain new and useful improvements in artificial dentures whereby the plate is caused to cleave to the roof of the mouth by atmospheric pressure. The arrangement can be cheaply manufactured, and the dentist can conveniently place the denture securely in position.

TENT STRUCTURE.—J. E. WALSH, New York, N. Y. This claim is on improvements in tent structures, the object of the inventor being to provide a tent having a framing the several members of which may be readily put together to form a strong and durable structure and that may be separated and packed in a comparatively small space convenient for transportation or storage. It is particularly designed for military camps, fields, hospitals, etc.

Heating and Lighting.

VENTILATING-HEATER.—C. B. HOLDING, Toledo, Ohio. This improvement refers to a heating device which is arranged to act as a ventilator and which is provided with means for causing circulation of the heated air. The objects are to provide for the above functions, and especially to obtain a stove or other heating device which will permit the passage of air directly through the fire, but out of contact with it, in order to quickly and efficiently heat it.

Household Utilities.

SHUTTER-FASTENER. — W. A. JORDAN, New Orleans, La. The invention pertains to improvements in fasteners which are used on the inside of ordinary hinged shutters and which engage with lugs or catches on the window frame. The object is to provide a fastener which cannot be released from the outside when the shutters are closed and which will be certain in its action and which can be securely locked in operative position.

Machines and Mechanical Devices.

REELING-MACHINE FOR PAPER OR OTHER FABRICS. — W. H. WALDRON, New Brunswick, N. J. The object of the present invention is to provide a machine arranged to insure automatic reeling or winding up of paper or other fabric, to allow convenient adjustment of the winding-roll, and to permit bringing the paper under proper tension. The invention relates to machines, such as shown and described in the Letters Patent of the United States formerly granted to Mr. Waldron.

FIRE APPARATUS.—S. A. A. STENBERG, San Francisco, Cal. The object of this invention which relates to stationary fire-systems, is to provide a fire apparatus designed for use on fire-hydrants in streets and other places and arranged to permit firemen, policemen, watchmen, and other authorized persons to make immediate use of the apparatus for extinguishing fires in the immediate neighborhood in which the hydrant is located.

GAS-GENERATOR. — J. J. NIX, Los Angeles, Cal. An important feature of the invention lies in the provision of two combustion and expansion chambers separated by a shallow checker-work of large area, thus allowing perfect expansion of the gas and a consequent gain in volume and bringing about a thorough association between the gas and checker-work, so as eventually to fix the gas. It relates to apparatus for generating gas, particularly from hydrocarbon oil atomized by air and steam.

MACHINE FOR MAKING PAPER ARTICLES.—F. J. MOTZ, New York, N. Y. The invention resides in a certain novel machine by which seamless paper articles may be produced, the machine being of that form having a vat and means for automatically submerging foraminous shapes therein and withdrawing them therefrom and exerting through the shapes a fluid movement during the submergence, thus causing the pulp to adhere to the shapes, so that after withdrawal from the vat the pulp may be allowed to harden or set on the shapes to form the finished articles.

OIL-PRESS.—D. J. HEIDERICH, Boyce, La. The leading feature of the invention resides in the arrangement of (preferably two) rotary turrets, each bearing a number of press-cylinders. The inventor employs means by which he greatly increases the capacity of the press and by a novel manner of interarranging the elements is able to dispense with a large percentage of the labor skilled and unskilled heretofore employed in this class of machinery. It relates to a press adapted particularly for producing oil from cotton seed and other oil-producing material.

SAW-FILING MACHINE. — C. H. SLACK, New York, N. Y. In this patent the invention has reference to a machine for filing saws; and by this means a saw may be placed in the machine and the machine adjusted so that by driving the machine the saw will be accurately and uniformly filed throughout its length.

RATCHET-WHEEL MECHANISM. — A. BENOÎT, J. GUÉNIFFET, J. NICAULT, and E. DANGER, 7 Rue Deparcieux, Paris, France. The object of this invention is to provide a mechanism which will allow of the ratchet-wheel being rapidly revolved by a step-by-step rotation, while being prevented each time from turning farther than the distance at which the pawl has moved forward whatever may be the speed and momentum of the wheel and the elements which revolve with the same.

LAWN-MOWER ATTACHMENT. — J. W. BONSALL, Glenville, Ohio. Mr. Bonsall's invention has reference to an improvement in lawn-mowers, his object in this instance being the reduction of the number of parts and the prevention of any grass being carried around by the rotating knives and insuring the cutting of all grass within the path of the mower.

Prime Movers and Their Accessories.

ROTARY ENGINE. — H. M. LOFTON, Atlanta, Ga. This invention relates particularly to that class of engines in which a revolving piston, provided with blades which may be projected from and drawn into its rim, operates within a casing to which steam is admitted and exhausted: and has for an object to provide means whereby to secure an efficient operation of the steam upon the blades and to relieve any tendency of steam to press the blades tightly against the walls of their guide-grooves in such manner as to impede free operation of the blades in the piston.