HALF CENTURY OF PROGRESS

ESTINGHOUSE is one of the group of enterprises that originated out of the creative genius of George Westinghouse. In 1886 the Westinghouse Electric Company was organized. There was acquired in 1889 a broad charter granted in 1872 to the Chartiers Improvement Company, and the name was changed to the present form—the Westinghouse Electric & Manufacturing Company.

When George Westinghouse began his operations, the electrical industry was still in its infancy. Cities and the restricted areas of dense population were served by plants equipped with electric generators for outdoor arc lighting and direct current for incandescent lighting of homes.

The first Westinghouse Works was in Pittsburgh and employed 200 men. The first price list consisted of a

handwritten sheet containing fourteen items. Today one catalog issued by Westinghouse contains well over 200,000 items and this covers but a part of the products. Obviously, no small booklet such as this could include all of the products; however, there is set forth in the following pages a list of the principal products.

In its beginning the Westinghouse sales staff consisted of some half dozen salesmen. Today the parent company has its sales representatives in 91 American cities and Westinghouse products are on sale in stores of more than 11,000 dealers. In addition, the products are distributed through subsidiaries, with 14 main and 66 branch offices in this country; and through branch offices and subsidiaries in 55 countries outside of the United States.

ESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY is primarily an operating concern owning its plants, properties and other assets. In addition, there are subsidiary manufacturing companies and subsidiary distributing companies; the stock of these companies is owned by Westinghouse Electric & Manufacturing Company. There are 19 works in 17 cities in 9 states as follows:

EAST PITTSBURGH WORKS	East Pittsburgh, Pa.
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GENERATOR DIVISION

Large machinery such as generators, motors, motor generator sets, synchronous condensers, rotary converters; mercury arc rectifiers and feeder voltage regulators. Railway motors, generators, converters and control for street and interurban railways, trunk line electrification, trolley buses and gas electric buses; axle-driven generators for train lighting and air conditioning; mill motors, mine motors, auxiliary marine motors.

Motor Division

Medium-sized machinery such as motors, generators, motor generator sets; arc, flash, and spot welders; and industrial control and regulating devices. Lightning arresters; capacitors; reactors; rectigons; rectox; industrial applications of electronic tubes; gasoline driven light and power plants for homes, and for industrial, commercial and aviation purposes; air conditioning apparatus for homes, railways, offices, stores, etc.; vertical automobile parking machines.

SWITCHGEAR DIVISION

Switchboards; armored switch gear; switch houses; oil, air and "De-ion" circuit breakers; outdoor switching equipment; automatic, remote and supervisory control; calculating boards.

FOUNDRY AND MICARTA DIVISION

Iron, steel and brass castings; copper rolling and drawing. Micarta for electrical insulation, silent gears, spinning buckets, bearings, serving trays, furniture, office paneling, and many other industrial and domestic applications.

- Radio transmission apparatus for broadcasting and other sending stations; radio receiving apparatus for aviation, navigation and similar purposes; high frequency and other electronic apparatus.

T O Works	East Spring field, Mass.
Small motors; small generators for aviation	ors and water coolers: humidifiers and room
coolers; motor driven household applian	ces, such as fronting macrimes, vacuum
EMERYVILLE WORKS—(Porcelain Division). Porcelain insulators of all types and sizes.	Emeryville, Cal.
EMERYVILLE WORKS-(Electric Division)	Gamage
Assembly of motors and distribution trans	formers.
Homewood Works	service. Pittsburgh, Pa.
Repair and renewar parts 202 apparatus	
Household appliances, such as electric rang waffle irons, toasters, etc.; electric cook taurants, and hospitals; industrial electric ances; safety switches; meter entrance and homes and buildings; refrigerator cabinets	ing and baking appliances for hotels, rescovens, furnaces, and other heating applidistribution "De-ion" circuit breakers for
NEWARK WORKS	for central stations and industrial purposes; oscillographs; cardiographs for doctors and ring, card sorting, counting, accounting, etc.
NUTTALL WORKS Industrial and railway gears; reduction equipment; motor and reduction gear comband pantagraphs.	gear units; oil well drilling and pumping binations; flexible couplings, railway trolleys
Hollowspun reinforced concrete ornamen	tal poles for street lighting, traffic signals, ng foundations.
SHARON WORKS	and instrument transformers of all types and lators; arc welders.
Steam turbines for central stations, indu	strial plants and marine installations; steam and other purposes; electric locomotives; and Diesel electric cars; steam ejectors and

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MISCELLANEOUS SUBSIDIARY COMPANIES

Interborough Improvement Company, East Pittsburgh, Pa., owns and rents, and in past has built and sold, dwellings to employes at various plant locations; Laurentide Mica Company, Limited, Ottawa, Ont., Canada, reserve mica mine, not now operated; The Turtle Creek & Allegheny River Railroad Company, East Pittsburgh, Pa., furnishes rail and freight facilities in East Pittsburgh works territory; Westinghouse Inter-Works Railway Company, East Pittsburgh, Pa., provides freight and transportation facilities between the several shops and buildings at East Pittsburgh and vicinity.

SUBSIDIARY COMPANIES MANUFACTURING WESTINGHOUSE PRODUCTS

Plants in Bloomfield, N. J., and Trenton, N. J.

Products: Every form of lamp for both exterior and interior lighting, ranging from "grain of wheat" lamps used in surgical work to the 10,000-watt lamp principally used in airport lighting. Miniature lamps for radio and power panels, automobiles, miners' lanterns, flashlights, etc.; photo-flash lamps, sun lamps, photo-electric tubes, grid-glow lamps, x-ray tubes, mercury switches; vacuum, gas-filled, and mercury vapor tubes of all kinds.

Maintains its own research laboratories devoted to the development of new devices for industrial operations, photography, therapeutic service and all types of household and industrial illumination. Designs and constructs its lamp manufacturing machinery on which it holds many valuable patents. The Company is self contained, in that it handles the raw materials and fabricates the metal parts and products entering into the manufacture of lamps and similar devices.

The main factories are located in Bloomfield, N. J., where 15,000,000 large Mazda lamps and 20,000,000 automotive and miniature lamps are made annually. The Trenton, N. J. plant has an output of 43,000,000 household Mazda lamps; the Belleville, N. J. plant produces 75,000,000 lamp bases and 28,000,000 radio tube bases annually.

The Bryant Electric Company.

Lamp sockets and receptacles; switches for lighting circuits, electric ranges and miscellaneous applications; attachment plugs and appliance plugs; baseboard receptacles; flush plates; rosettes; fuses; fuseholders; cord sets; sentinel circuit breakers; hospital signalling systems; regulating and control equipment for refrigerators, air conditioning, etc.; time switches; push buttons; miscellaneous wiring devices, molded material for electrical apparatus, household utensils, etc.

All types of electric passenger and electric freight elevators for office buildings, warehouses, department stores, apartment houses, hotels and factories; electric stairways.

Installations include: New York City—RCA Building, Central Tower, British Building and French Building of Rockefeller Center, Bankers Trust, New York Trust, Insurance Company of North America, Downtown Athletic Club, Parcel Post, Daily News. Pittsburgh—Grant Building, Gulf Oil, Koppers Company, William Penn Hotel, Joseph Horne Store, Allegheny General Hospital, Cathedral of Learning, Duquesne Club. Cincinnati—Carew Tower. Detroit—Fisher Building, New Center Building, First National Bank. Chicago—Merchandise Mart, Civic Opera Building, Foreman Bank, Chicago Post Office, Stevens Hotel. St. Louis—County Court Building, St. Louis Mart & Terminal Warehouse. Dallas—Dallas Power & Light Building. San Antonio—Milam Building. Seattle—Northern Life Insurance Building. Boston—Atlantic National Bank, Christian Science Publishing Company. Philadelphia—Market Street National Bank, University Club. Portland—Yeon Building.

SUBSIDIARY COMPANIES DISTRIBUTING WESTINGHOUSE PRODUCTS

Westinghouse Electric Supply Company...... New York, N. Y.

The Westinghouse Electric Supply Company operates a complete electrical wholesaling business, providing local distributing centers for Westinghouse and other electrical products in 66 cities strategically located in all parts of the United States.

These distributing houses carry in stock a full line of Westinghouse electrical appliances, lamps and lighting material, safety switches and other standard apparatus such as motors; and in addition a complete line of supplies, including wires and cables, conduit and wiring supplies of all kinds.

Thus a localized service with quick delivery is offered to dealers, contractors, industrial plants and central stations.

Offices and warehouses of the Supply Company are located in the following cities:

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Albany, N. Y.	Duluth, Minn.	Oakland, Cal.	Springfield, Mass.
Allentown, Pa.	Evansville, Ind.	Oklahoma City, Okla.	St. Louis, Mo.
Atlanta, Ga.	Flint, Mich.	Omaha, Nebr.	St. Paul, Minn.
Augusta, Me.	Ft. Worth, Tex.	Peoria, Ill.	Syracuse, N. Y.
Baltimore, Md.	Grand Rapids, Mich.	Philadelphia, Pa.	Tampa, Fla.
Bangor, Me.	Greenville, S. C.	Phoenix, Ariz.	Toledo, O.
Binghamton, N. Y.	Houston, Tex.	Portland, Ore.	Trenton, N. J.
Boston, Mass.	Indianapolis, Ind.	Providence, R. I.	Tulsa, Okla.
Burlington, Vt.	Jacksonville, Fla.	Raleigh, N. C.	Utica, N. Y.
Butte, Mont.	Los Angeles, Cal.	Reading, Pa.	Washington, D. C.
Charlotte, N. C.	Madison, Wis.	Richmond, Va.	Waterloo, Ia.
Chicago, Ill.	Memphis, Tenn.	Rochester, N. Y.	Wichita, Kan.
Cleveland, O.	Milwaukee, Wis.	San Antonio, Tex.	Wilmington, Del.
Columbia, S. C.	Minneapolis, Minn.	San Francisco, Cal.	Worcester, Mass.
Dallas, Tex.	Newark, N. J.	Seattle, Wash.	York, Pa.
Des Moines, Ia.	New Haven, Conn.	Sioux City, Ia.	
Detroit, Mich.	New York, N. Y.	Spokane, Wash.	

Distribution, outside of United States and Canada, of products manufactured by Westinghouse and subsidiaries. Branch Offices and subsidiary companies in these countries: Argentina, Australia, Chile, Cuba, Mexico and South Africa. Distributors in: Bahama Islands, Belgian Congo, Belgium, Bermuda, Bolivia, Brazil, British East Africa, British Guiana, British Honduras, China, Colombia, Costa Rica, Cyprus, Czecho Slovakia, East Indies, Ecuador, France, Greece, Guatemala, Honduras, India, Iraq (Mesopotamia), Italy, Jamaica, Japan, Jugo-Slavia, Luxemburg, Morocco, Netherlands, Newfoundland, New Zealand, Nicaragua, Norway, Palestine, Panama, Paraguay, Peru, Philippine Islands, Porto Rico, Portuguese East Africa, Salvador, Siam, Spain, Straits Settlements, Switzerland, Syria, Tripoli, United Kingdom and Ireland, Uruguay, Venezula, West Indies.

HEN George Westinghouse started his experiments, he could not have even dreamed that those humble beginnings would help to revolutionize everyday life. Consider the changes since the days of our mothers and our grandmothers. Food was cooked on stoves burning wood and coal. There were ice boxes but little was known of the preservation of food stuffs by refrigeration. Even in cities few homes had running water or a bath room or central heating system. Gas was used for street lighting in larger communities but kerosene lamps lighted the homes.

At the Philadelphia Centennial of 1876 the telephone was an interesting curiosity. In September 1882 the first electric generating station was opened in New York City. People rode on horses or in carriages. Wagons delivered city freight and hauled farm produce to town. Sleeping cars were

called "palace-cars"; and, locomotive smoke-stacks were then gigantic funnels. There were horse cars but the electric trolley cars did not come until 1888. Transatlantic liners, a far cry from our modern floating palaces, were developed about the same time.

Safety bicycles were shown in 1893 at the Chicago World's Fair-where Westinghouse installed the system of electric illumination and exterior floodlighting of public buildings.

Arc lights and carbon-filament incandescent lights were under way in 1894. In 1907 the tungsten lamp was introduced and gas-filled bulbs about 1014. No one then dreamed of x-ray and radio.

It was not until 1902 that automobiles were made in volume. The Wright Brothers flew in 1903. The first major railroad electrification was the New Haven in 1907.

If for a week every husband did the cooking, cleaned the ice box, washed the dirty dishes, used the broom and dust pan, scrubbed the floors and ironed the clothes with antiquated household utensils—there would be a domestic eruption. Out would go the oldin would come modern household conveniences.

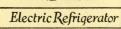
Electrically operated household devices have emancipated women from hard labor in the home. Out of 20 years of married life the wife used to spend six years chained to the wash-tub; and another six with the broom and dust pan in her hands. In the rural districts, water was drawn from springs and wells. Fires had to be kept burning in the kitchen stove, food cooked three times daily and the greasy dishes washed. Filling oil lamps and lanterns, washing and polishing the lamp globes consumed 200 days out of her 20 years. The introduction of electric power lines into rural districts has meant a new day and a new night, too, for the farmer and his wife.

Slavery of housework is being banished. Electricity is lifting heavy burdens from weary shoulders. Washing machines, dishwashers, cooking ranges, water heaters, irons, refrigerators, percolators, waffle irons, toasters, vacuum cleaners, foodmixers, air conditioners and the many other electrically operated household appliances, now household necessities, were novelties even 20 years ago.

These changes in our everyday life have been experienced by a generation of men and women, still in their prime of life. This advancement in the mode of living could not have been accomplished without the contribution of the electrical industry—in which Westinghouse has been a pioneer.









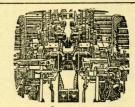
Electric Street Lighting



Lighting by Electricity



Vacuum Cleaner



Electrified Textile Mill



Electric Range



Ocean Liner

Electric Locomotive

WESTINGHOUSE INDUSTRIAL APPARATUS

HE wide variety of products made in the Westinghouse plants and distributed by its sales organizations the world over, may be divided into two groups: 1) Devices and Apparatus for Industrial Uses and; 2) Household Appliances. Obviously, no small booklet such as this could include all the products. However, there is set forth in the following lists the principal Westinghouse products:



AVIATION

Approach, Boundary,
Hangar, and Obstruction Lights
Arc Welding Equip.
Beacons and Floodlights
Instruments
MAZDA Lamps
Micarta
Cabin-lining Plate
Fairleads, Pulleys

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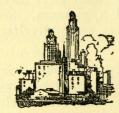
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Hinge Bearings
Tailwheels, Firewalls
Motor Generators
Panelboards, Nofuze
Reflectors
Regulators
Safety Switches
Time Switches
Transformers
Underground Cable



BUILDINGS

Air Conditioning Equip. Air Heaters Arc Welding Equipment Capacitors Circuit-Breakers Elevators and Control Fans Generators Glue and Solder Pots Instruments and Relays Kitchen Equipment Bake Ovens Hot Plates, Ranges Lighting Equipment Brackets, Newels and Lanterns

Lunaire, Magnalux, Sollaire, Sollux Luminaires Reflectors & Lamps Micarta Trays, Name Plates and Paneling Meters Meter Service Switches Motors and Control for: Coal and Ash-Handling Equipment Compressors Elevators Fans and Blowers Laundry Equipment Refrigerating Equip. Water & Sump Pumps Motor Generators

Panelboards, Nofuze Refrigerators Synchronous Converters Safety Switches Solar Glow Heaters Stokers

CITY IMPROVEMENT

Airport Floodlights
Automatic Substations
Constant Cur. Regulators
Control Apparatus
Elec. Railway Equip.
Floodlighting Equip.
Lighting Units

MAZDA Lamps Motors Ornamental Standards Parkway Cables Street Brackets Streethoods Transformers

Switches, "De-ion"

Breaker

Transformers

Water Coolers

Vacuum Cleaners

Switchgear

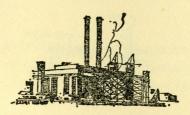


ELECTRIC RAILWAYS

Arc Welding Equip. Automatic Substations Babbitt, Solder & Pots Baking Ovens Car Panelboards Circuit-Breakers Coaches, Gas-Electric, and Trolley Fans Gears and Pinions Generators Instruments & Meters Insulating Materials Insulators Lighting Fixtures Lightning Arresters

Line Material Locomotives, Elec. Manual Substations MAZDA Lamps Motors and Control Panelboards, Nofuze Portable Substations Relays Safety Switches Signal Equipment Supervisory Control Switchgear Synchronous Converters Track Snow Melters Transformers Trolley Poles W. N. Drive

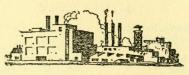
WESTINGHOUSE INDUSTRIAL APPARATUS



ELECTRIC SERVICE COMPANIES

Automatic Switching Equipment Capacitors Circuit-Breakers Cutouts and Fuses Fans Frequency-converters Generators Instruments & Meters Insulating Materials Insulators Line Material Lighting Equipment Lightning Arresters MAZDA Lamps Meters, Outdoor Micarta Motor Generators Motors and Control Network Protectors Oil Testing and Purifying Equipment

Outdoor Substations Panelboards, Nofuze Porcelain Insulators Rectifiers, Power Rectigon and Rectox Rectifiers Regulators Relays Safety Switches Steam Turbines Stokers Supervisory Control Switches, "De-ion" Breaker Switchgear Synchronous Condensers Synchronous Converters Transformers, Surge Proof Turbine Generators Voltage Regulators Water Coolers



MILLS AND FACTORIES

Air Heaters Arc Welding Equip. Automatic Starters and Controllers Babbitt & Babbitt Pots Capacitors Circuit-Breakers Condensers Cutouts Fans Furnaces and Ovens Gearmotors Gears, Micarta Generating Equipment Industrial Breakers Industrial Heating Equip. Insulating Materials Insulators Knife Switches Larry Car Equipment Lighting Equipment Lightning Arresters

Locomotives-Electric. Gas-Elec., Oil-Elec. MAZDA Lamps Meters and Relays Motors and Control Motor Starters Outdoor Substations Panelboards, Nofuze Pipe Fittings (Structural) Power House Apparatus Power Rectifiers Safety Switches Solder & Glue Pots Space Heaters Steam Jet Refrigeration Steam Turbines Stokers Switches, "De-ion" Breaker Switchgear Thermionic Tube Control Transformers Water Coolers



FARMS

Cutouts
Fans, Exhaust
Floodlight Projectors
Hot Bed Heaters
Load Centers, Nofuze
MAZDA Lamps
Milk Coolers
Motors for Appliances
and Power Purposes
Outdoor Switch Houses

Panelboards, Nofuze Portable Power Units Ranges Refrigerators Safety Switches Small Light Plants Solar Glow Heaters Ultra Violet Lamps Washing Machines Water Heaters Water Systems



MINES

Arc Welding Equip.
Automatic Feeder Equip.
Automatic Starters
and Controllers
Automatic Substations
Battery Charging Equip.
Circuit-Breakers
Clamps
Fans
Gears and Pinions
Heating Apparatus, Elec.
Headlights
Insulating Materials
Insulators

Larry Car Equipment
Lighting Equip.
Lightning Arresters
Line Material
Locomotives, Electric
Manual Substations
MAZDA Lamps
Meters & Instruments
Micarta
Motor Generators
Motors for All Applications, Surface and
Underground
Outdoor Substations

WESTINGHOUSE INDUSTRIAL APPARATUS

MINES (Cont'd)

Panelboards, Nofuze Portable Substations Relays Safety Switches Switchgear Switches, "De-ion"
Breaker
Synchronous Converters
Transformers
Ventilating Outfits



OFFICES AND STORES

Air Conditioning Equip.
Air Heaters
Bread-baking Ovens
Elevators and Control
Fans
Humidifiers
Lighting Equipment
MAZDA Lamps
Meters
Meter Service Breakers
Micarta Panels and
Desk Tops

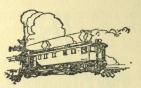
Motors for
Adding Machines
Addressing Machines
Coffee and Meat
Grinders, etc.
Envelope Sealers
Fans and Blowers
Pumps
Panelboards, Nofuze
Refrigerating Equipment
Safety Switches
Switches
Water Coolers



OIL FIELDS

Arc Welding Equip.
Change House Heaters
Floodlight Projectors
Gear Units
Heat Exchangers
Instruments
Insulators
MAZDA Lamps
Motors and Control
Outdoor Substations

Panelboards, Nofuze Reflectors Rig Lighters Safety Switches Small Light Plants Switches, "De-ion" Breaker Transformers Vapor-proof Fixtures



RAILROADS

Line Material

Micarta

Locomotives-Electric,

Manual Substations
MAZDA Lamps

Motors and Control Outdoor Substations Panelboards, Nofuze

Safety Switches

Breaker

Switchgear

Stokers

Signal Equipment Switches, "De-ion"

Supervisory Control

Track Snow Melters

Yard Lighting Equip.

Tractor Welders

Transformers

Gas-Elec., Oil-Elec.

Power House Apparatus

Air Conditioning Equip.
Arc Welding Equipment
Automatic Substations
Babbitt, Solder & Pots
Baking Ovens
Battery Charging Equip.
Cars—Multiple-Unit,
Gas-Elec., Oil-Elec.

Gas-Elec., Oil-Elec.
Circuit-Breakers
Cooking Equipment
Control Apparatus
Fans
Gears and Pinions
Generators
Headlight Equipment
Heating Apparatus, Elec.
Instruments
Insulating Materials
Insulators
Lighting Equipment
Lightning Arresters



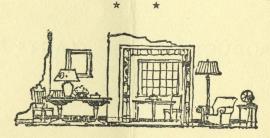
SHIPS

Air Conditioning Equip.
Appliances, Electrical
Bearings, Micarta
Circuit-Breakers
Condensing Equipment
Deck Winch Motors
Eng. Room Auxiliaries
Fans
Generating Equipment
Heating Apparatus, Elec.
Instruments
Insulating Materials
Lighting Equipment
Motors and Control
Micarta Paneling

Ovens, Ranges and Galley Equipment Panelboards, Nofuze Propulsion Equipment Diesel-Electric Geared Turbine Turbine Electric Refrigerating Equip. Safety Switches Small Light Plants Switchgear Switches, "De-ion" Breaker Trays, Micarta

WESTINGHOUSE PRODUCTS FOR THE HOME

ONG a leader in household apparatus, Westinghouse Electric & Manufacturing Company is continuously strengthening its position in the field of electrically operated devices for the home. A partial list of products follows:



EVERY HOUSE NEEDS WESTINGHOUSE

Air Conditioning Equip.
Air Heaters
Aquarium Heaters
Auto Engine Heaters
Coffee Makers
Curling Irons
Duster Cleaners
Fans, Desk and Exhaust
Food Mixers
Hand Vacs
Hot Bed Heaters
Hot Plates
Humidifiers

Ironers
Irons
Lighting Fixtures
Load Centers, Nofuze
MAZDA Lamps
Meter Service Breakers
Motors for
Buffers and Grinders
Ironers and Washers
Refrigerators
Sewing Machines
Vacuum Cleaners
Newel Posts

Panelboards, Nofuze
Paneling, Micarta
Percolators
Ranges
Rectox Chargers for
Automobile and
Radio Batteries
Rectox Trickle Chargers
Refrigerators
Safety Switches
Sandwich Grills
Small Light Plants
Solar Glow Heaters

Table Stoves
Trays, Micarta
Tumbler Water Heaters
Turnover Toasters
Ultra Violet Lamps
Urn Sets
Vacuum Cleaners
Waffle Irons
Washing Machines
Warming Pads
Water Heaters
Water Systems
Wiring Devices

· information and literature on al

For information and literature on all Westinghouse products, see the Westinghouse dealer in your community, the District Office nearest you, or address Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.

Printed in U. S. A. June, 1933

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WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY



WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY



PLANTS AND PRODUCTS

PLANTS AND PRODUCTS