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JUN 13 '18

Form 183–10000–11–17.

THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

33 West 39th Street, New York

A. I. E. E. NOV 15 1917 NEW YORK

PERSONAL CLASSIFICATION SHEET

Read pages 2, 3 and 4 before filling out this blank

Please return this sheet with your data, even if you have filled out similar blanks for other organizations

Name in full Smith, (Surname) Harold (First name) Babbitt (Second name) Date Nov 13th 1917

Mail address Worcester Polytechnic Institute, (Number) Salisbury St. (Street)

Worcester, (City) Mass. (State)

Telegraph address as above Telephone No. Park 6822 " 3534-M Married? Yes Dependents? yes (If widower answer no.)

Occupation or position Prof. of Electrical Engineering – Consulting Engineer

Name of employer Worcester Polytechnic Institute, Westinghouse Elect & Mfg. Co.

Location Worcester, Mass – Pittsburgh, Pa.

Kind of business Educational Engineering & Mfg.

Birth: Year 1869 Country U.S.A. When naturalized?

Citizen of what country? U.S.A.

Physical condition Good

Education { Common School yes / High School yes } College Cornell Univ. (Name of College) Course E.E. Year graduated 1891 Degree M.E.

Member of what engineering and technical societies? See sheet inserted –

What foreign languages do you speak? French Fluently? No Read French & German

In what countries have you resided and what years? Europe Africa Asia 1911-13 – See insert

In what countries traveled extensively? as above

What military or naval training? Military course at Cornell Univ.

Are you in active service or reserve? No Rank? —

Member of what war committees? Asso. member Naval Consulting Board – with the Special Board of Navy Dept –

Please *review carefully* pages 2, 3 and 4, and enter in the following spaces brief descriptions and symbols of the leading specialties in which you have had *considerable experience*. For example, the symbols for an inspector of underground electrical transmission systems would be "A7, B12, Fa 1b."

Specialties in which you have had greatest experience (This table is for indexing purposes)	Symbols of Specialties
Electrical Engineering	A-7
Electrical Engineering Design	B-5
Consulting Electrical Engineer	B-2
Research Electrical Engineer	B-23
Electrical Engineering Teaching	B-28

Other Specialties

INDUSTRIAL AND PROFESSIONAL EXPERIENCE

Check (√) each division in which you have had sufficient experience to be of service. Use blank spaces as needed.

A BRANCHES OF ENGINEERING.

1 Aeronautics
2 Automotive
3 Architecture
4 Ballistics
5 Chemical
6 Civil
7 Electrical
8 Gas
9 Heating and Ventilating
10 Hydraulic
11 Illuminating
12 Marine
13 Mathematics
14 Mechanical
15 Metallurgy
16 Metallography
17 Machine Shop Practice
18 Mill (Textile, etc.)
19 Military
20 Mining
21 Municipal
22 Naval Architecture
23 Navigation
24 Patent Law
25 Power
26 Public Utility Service
27 Physics
28 Railroad
29 Safety, Fire Prevention
30 Telegraph, Telephone (see *E* 1-6)
31 Welfare Work
32

B POSITIONS HELD IN "*A*".

Check the most important positions you have held, and follow by number of the branch checked under "*A*."
For example, a consulting heating and ventilating engineer should mark the list below as follows:
"√ 2 Consulting Engineer *A* 9."

1 Appraiser
2 Consulting Engineer A-7
3 Constructing Engineer
4 Contractor
4*a* Department Manager
5 Designer of Apparatus or Machinery A-7
5*a* Designer of Plant
5*b* Economist
6 Draftsman A-7-14
7 Editor
8 Erecting Engineer
9 Estimator
10 Executive, general
10*a* Foreman
11 Industrial Engineer
12 Inspector
13 Laboratory Chief A-7
13*a* Laboratory Assistant
14 Manufacturer
15 Master Mechanic
16 Office Executive
17 Operating Engineer
18 Organizing Engineer
19 Production Engineer
20 Publicity Engineer
21 Purchasing Agent
22 Rate Setter
23 Research Engineer A-7
24 Sales Engineer
25 Sales Manager
26 Specification Engineer
27 Superintendent
28 Teacher A-7
29 Testing Engineer
30 Works Manager
31 Writer
32
33

RECORD OF EXPERIENCE.

Please give below an account of your engineering and technical experience, bringing out in particular any line in which you are especially proficient.

Give approximate dates of your experience in each case—*this is most important.*

See sheet inserted.

B28	A7	Prof. E. E. (Worcester Poly. Inst.)
B2	A7	Consult. Engr.
B23	A7	Research Engr.
B5	A7	Design Elec. Equip.
		F, Fa 1a, S1

Continue on a separate sheet if necessary.

INDEXING SCHEDULE

EXPERIENCE IN DETAIL

Check each subdivision in which you have had experience, adding subdivisions and sub-subdivisions as needed.
Your entries in the following schedule are for indexing purposes.

C AGRICULTURAL MACHINERY AND IMPLEMENTS
(Including Farm Tractors and the Application of Electricity)
1
2

D AVIATION
1 Aeroplanes
2 Hydro-aeroplanes
3 Balloons and Dirigibles (Including Production of Hydrogen)
4 Engines
5 Fuselages and Planes
6 Parts and Instruments
7

E COMMUNICATION
1 Cables
2 Signal Systems
3 Telegraph
4 Telephone
5 Radio
6 Light Rays
7

F ELECTRICAL APPARATUS
See also *I*-7, *M*-5, *N*-4, *R*-4, *S*-1, *U* & *Z*
1 Generators
2 Motors and Converters
3 Transformers
4 Lamps (see *Ha*)
5 Batteries
6 Controlling Devices
7 Magnets and Solenoids
8 Switchboards
9 Heaters
10 Rectifiers
11

Fa ELECTRICAL TRANSMISSION AND DISTRIBUTION
1 Transmission Systems
a Overhead
b Underground
2 Distributing Systems
a Overhead
b Underground
3 Circuit Protection
4 Wiring of Buildings and Ships
5 Wires and Cables
6

G FUELS AND COMBUSTION
(See also *Q*, Oil and Gas Supply)
1 Coal
2 Coke
3 Low-grade Fuels
4 Blast-furnace and Coke-oven Gas
5 Producer Gas
6 Boiler Furnaces
a Stokers
b
7 Industrial Furnaces
8 Oil-burning Equipment
9 Powdered-fuel Equipment
10

H HEATING AND VENTILATING
1 Hot-air
2 Steam and Hot-water
3 Vacuum Systems
4 Ventilating Systems
5 Air-conditioning
6 Central Plants
7

Ha LIGHTING
(Electricity, Gas, Oil)
1 Residence
2 Industrial
3 Street
4 Head-lighting
5 Flood-lighting
6 Picture Projection
7 Shades, Reflectors, Fixtures
8 Lamps (See *I*5, *Z*7)

I MACHINERY AND TOOLS
1 Machine Parts
a Ball and Roller Bearings
b Gears
c
2 Machine Tools
(Specify what tools)
a
b
c
d Grinding Machines
e Polishing Machinery
3 Small Tools
4 Gages, Jigs and Fixtures
5 Metal-working Machinery
a Bending and Straightening Machines
b Shearing Machines
c Power Presses
d Wire-drawing Machines
e

I MACHINERY AND TOOLS (*Continued*)
6 Forge Shop Equipment
(See also *N*)
a Steam and Air Hammers
b Bulldozers
c
7 Welding Equipment
a Electric
b Oxy-acetylene
c

J ENGINEERING MACHINERY
1 Air Machinery
a Compressors
b Pneumatic Tools
c Fans and Blowers
d Turbo-blowers
e
2 Pumps
a Centrifugal
b Direct-acting
c Hydraulic-pressure
d Pumping Engines
e
3 Refrigerating
a Ice Making
b Cold Storage
c
4 Hoisting and Conveying
a Conveyors
b Cableways
c Cranes and Hoists
d Elevators and Escalators
e Pneumatic Tube Systems
f
5 Mining
a Boring
b Draining
c Dredging
d Excavating
e Hydraulic
f Quarrying
g Tunnelling
h
6 Chemical Plant Equipment
a Evaporators
b Drying Apparatus
c
7 Fire Extinguishing Machines
a Sprinklers
b Engines
c Chemical
d

K INDUSTRIAL MACHINERY
1 Cement
2 Dairying
3 Flour-milling
4 Mining and Ore-dressing
5 Paper and Pulp
6 Logging
7 Saw-mill
8 Shoe
9 Sugar
10 Textile
11 Wood-working
12
13
14 Specialty Machines
a Adding
b Envelops
c Sewing
d Typewriters
e Weighing
f

L MATERIALS
1 Iron and Steel
a Cast Iron
b Malleable Iron
c Wrought Iron
d
e Alloys
f Cast Steel
g High-speed Steel
h Steel Castings
j Structural Steel
k Manfactured Product (See *L*-5)
l Cold-drawn Steel
m
2 Non-ferrous Metals
a Alloys
b Aluminum and Magnesium
c Antimony, Bismuth, and Cadmium
d Brass and Bronze
e Chromium and Manganese
f Copper
g Gold and Silver
h Iron and Steel
i Lead
j Mercury
k Nickel and Cobalt
l Platinum Metals
m Radium and Uranium
n Silicon and Titanium
o Sodium
p Tin
q Tungsten
r Zinc
s

INDEXING SCHEDULE
(Continued)

L MATERIALS (*Continued*)
- 3 Non-Metals
  - *a* Abrasives
  - *b* Asbestos
  - *c* Belting Materials
  - *d* Insulating Materials
  - *e* Lubricating Oils
  - *f* Carbon Products
  - *g* Concrete, Reinforced Concrete
  - *h* Timber
  - *i*
- 4 Chemicals
  - *a* Acids, Alkalies and Salts
  - *b* Alcohol and Acetone
  - *c* Ammonia
  - *d* Analytical Chemistry
  - *e* Barium Compounds
  - *f* Cement, Lime (see **L**-3)
  - *g* Coke and Tar
  - *h* Dyes and Textiles
  - *i* Explosives (high)
  - *j* Explosives (black powder)
  - *k* Fats and Soaps
  - *l* Fertilizers
  - *m* Foods
  - *n* Glass and Ceramics
  - *o* Inorganic Chemicals
  - *p* Nitrogen (synthetic)
  - *q* Organic Chemicals (other than *b*)
  - *r* Paints and Varnish
  - *s* Petroleum and Asphalt
  - *t* Pharmaceuticals
  - *u* Pyrotechnics
  - *v* Rubber and Allied Substances
  - *w* Sugar, Starch, and Gums
  - *x* Toluol, Benzol
  - *y* Wood Products
- 5 Supplies
  - *a* Bolts and Nuts
  - *b* Brass Products
  - *c* Pipe and Fittings
  - *d* Tubes
  - *e* Wire
  - *f*

M MEASURING AND TESTING APPARATUS
- 1 Calipers and Gages
- 2 Pressure Gages
- 3 Flow Meters
- 4 Dynamometers
- 5 Electrical Instruments
- 6 Pyrometers
- 7 Recording Instruments
- 8 Testing Machines
- 9 Weighing Apparatus
- 10 Photometers
- 11

N METALLURGICAL EQUIPMENT

(For Heat-treatment, etc., see **Z**)
- 1 Foundry Equipment (Specify what equipment)
  - *a*

N METALLURGICAL EQUIPMENT (*Continued*)
- 2 Iron and Steel Works Equipment
  - *a* Blowing Engines
  - *b* Coke oven (including by-product) Equipment
  - *c* Rolling Mill Equipment
  - *d*
- 3 Forging Equipment
  - *a* Forging Presses
  - *b*
- 4 Electric Furnace

O MUNICIPAL AND COMMUNITY
- 1 Pavements and Roads
- 2 Sewerage and Water Supply
- 3 Irrigation

P MUNITIONS
- 1 Artillery
- 2 Machine Guns
- 3 Rifles
- 4 Side Arms
- 5 Explosives
- 6 Shells
- 7 Fuses
- 8 Cartridges
- 9 Aircraft Bombs
- 10 Torpedoes
- 11 Mines
- 12 Grenades
- 13

Q GAS MANUFACTURE AND SUPPLY
- 1 Coal Gas Plant
- 2 Water Gas Plant
- 3 Pintsch Gas Plant
- 4 Distribution System
- 5 Lamps (see **Ha**)
- 6

Qa OIL AND NATURAL GAS SUPPLY
- 1
- 2 Natural Gas Wells Equipment
- 3 Natural Gas Distribution
- 4 Oil Well Equipment
- 5 Oil Distribution
- 6 Oil Refining
- 7 Lamps (see **Ha**)
- 8

R POWER GENERATION
- 1 Steam Power and Plant Equipment (For Furnaces see **G**)
  - *a* Boilers
  - *b* Superheaters
  - *c* Economizers
  - *d* Feedwater Heaters
  - *e* Engines

R POWER GENERATION (*Continued*)
  - *f* Turbines
  - *g* Condensers
  - *h* Piping, Valves and Fittings
  - *j* Steam Specialties
  - *k*
- 2 Gas Power and Plant Equipment
  - *a* Gas Producers
  - *b* Blast Furnace and Coke-oven Gas Equipment
  - *c* Gas Engines
  - *d* Oil Engines
  - *e* Gasoline Engines
  - *f* High-speed Gasoline Engines
  - *g*
- 3 Hydraulic Power and Plant Equipment
  - *a* Turbines
  - *b*
- 4 Electric Light and Power
  - *a* Central Stations
  - *b* Isolated Plants
  - *c*
  - *d* Substations

S POWER TRANSMISSION
- 1 Electric
  - *a* Motor Drive
  - *b* Motor Control
  - *c*
- 2 Belt Transmission
  - *a* Shafting
  - *b* Pulleys
  - *c*
- 3 Rope Transmission
- 4 Chain Transmission
- 5 Gearing
  - *a* Reduction Gearing
  - *b*

T SHIPS
- 1 Merchant Ships and Transports (Specify wood or steel)
- 2 Warships
- 3 Patrol Boats
- 4 Small Boats, Yachts
- 5 Submarines
- 6 Trawlers and Mine Sweepers
- 7

U STRUCTURES AND BUILDINGS
- 1 Foundations
- 2 Factories
- 3 Tanks
- 4 Power Houses
- 5 Docks, Dikes, Levees
- 6 Bridges
- 7 Dams
- 8

U TRANSPORTATION
- 1 Animal
- 2 Automobiles (Specify whether gasoline, electric or steam)
  - *a* Pleasure Cars
  - *b* Road Tractors
  - *c* Trucks
  - *d* Motor Cycles
  - *e* Motors
  - *f* Accessories and Parts
  - *g*
- 3 Railway, Electric
  - *a* Maintenance of Way
  - *b* Valuation
  - *c* Trolley Cars
  - *d* Gasoline-electric Cars
  - *e* Car Barns and Sheds
  - *f* Electrolysis Prevention
  - *g*
- 4 Railroad, (Steam or Electric) (Specify whether steam or electric)
  - *a* Maintenance of Way
  - *b* Cars
  - *c* Locomotives
  - *d* Brakes
  - *e* Locomotive Terminals and Equipment
  - *f* Signals
  - *g*
- 5 Railway, Industrial
- 6 Marine
  - *a* Boilers
  - *b* Oil-burning Equipment
  - *c* Steam Engines
  - *d* Oil and Gasoline Engines
  - *e* Turbines
  - *f* Electric Drive
  - *g* Propellers
  - *h* Steering Gear
  - *j*
- 7 Canal
  - *a* Electric
  - *b*

W

X

Y

Z MANUFACTURING AND SPECIAL PROCESSES
- 1 Machine Shop Processes
- 2 Cement Manufacture
- 3 Paper Manufacture
- 4 Textile Manufacture
- 5 Electrochemical
- 6 Electrometallurgical
- 7 Special Processes (Please add any processes with which you have had experience).
  - *a* Dynamic Balancing
  - *b* Die Casting
  - *c* Heat Treatment
  - *d* Metal Coating
  - *e* Wood Preservation
  - *f* Lamp Manufacture
  - *g*