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R.B.

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Form 183–10000–11–17.

THE AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS

33 West 39th Street, 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 Kennelly (Surname) Arthur (First name) Edwin (Second name) Date 13th Nov. 1917

Mail address (Number) Harvard (Street) University

(City) Cambridge (State) Mass.

Telegraph address ____ Telephone No. ____ Married? Yes (If widower answer no.) Dependents? Yes

Occupation or position Professor of Electrical Engineering Harvard and Mass. Inst Tech. also consulting elec. engr.

Name of employer ~~Harvard University~~

Location Cambridge

Kind of business Teaching and Learning

Birth: Year 1861 Dec. Country Hindostan (Great Britain) When naturalized? 1906

Citizen of what country? United States

Physical condition Sound

Education { Common School ____ High School ____ Various ____ } College None (Name of College) Course ____ Year graduated ____ Degree Sc.D (hon) A M (hon)

Member of what engineering and technical societies? Past Pres. A I E E 1898-1900, Past Pres. Ill. Engg. Soc. 1911, Past Pres I R E 1916

What foreign languages do you speak? French German Spanish + Italian Fluently? French Read others moderately

In what countries have you resided and what years? France + Belgium at school also Spain and Italy several years

In what countries traveled extensively? Europe very generally, Asia and Africa some parts

What military or naval training? Merely school military training

Are you in active service or reserve? no Rank? none

Member of what war committees? None important

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
Submarine telegraph cables (Engineer in charge of such work several years.	
Electrical engineering consulting and research.	

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

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

Telegraph operator (morse, mirror and siphon recorder) 1876 – 1878.
Telegraph Cable Asst Electrician 1878 – 1880
Telegraph Cable Engineer 1880 – 1887
Asst (Senior) to Mr. Thos. A. Edison 1887 – 1894
Consulting Electrician to Edison Gen. Elec. Co. + Gen. Elec. Co. 1892-94.
Consulting Elec. Engineer (Firm of Houston + Kennelly, Phila. Pa) 1894 – 1902.
~~Prof~~ Engr. in charge of laying Vera-Cruz - Frontera - Campeche cables for Mex Govt 1902.
~~Prof~~ of Elec. Engg at Harvard since 1902 and at M.I.T. since 1914.
Director of Elec. Research Div. Elec. Engg Dept M I T since 1915.

B 28 | A 7 Prof E.E. (Harvard + M.I.T.)
B 23 | A 7 Head Research Dept. (M.I.T.)
B 2 | A 7 Consulting Engr. (Edison Gen. Elec. Co.)
E 1, E 3, E 5, F 2, R 4, S 1

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 Envelope
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*