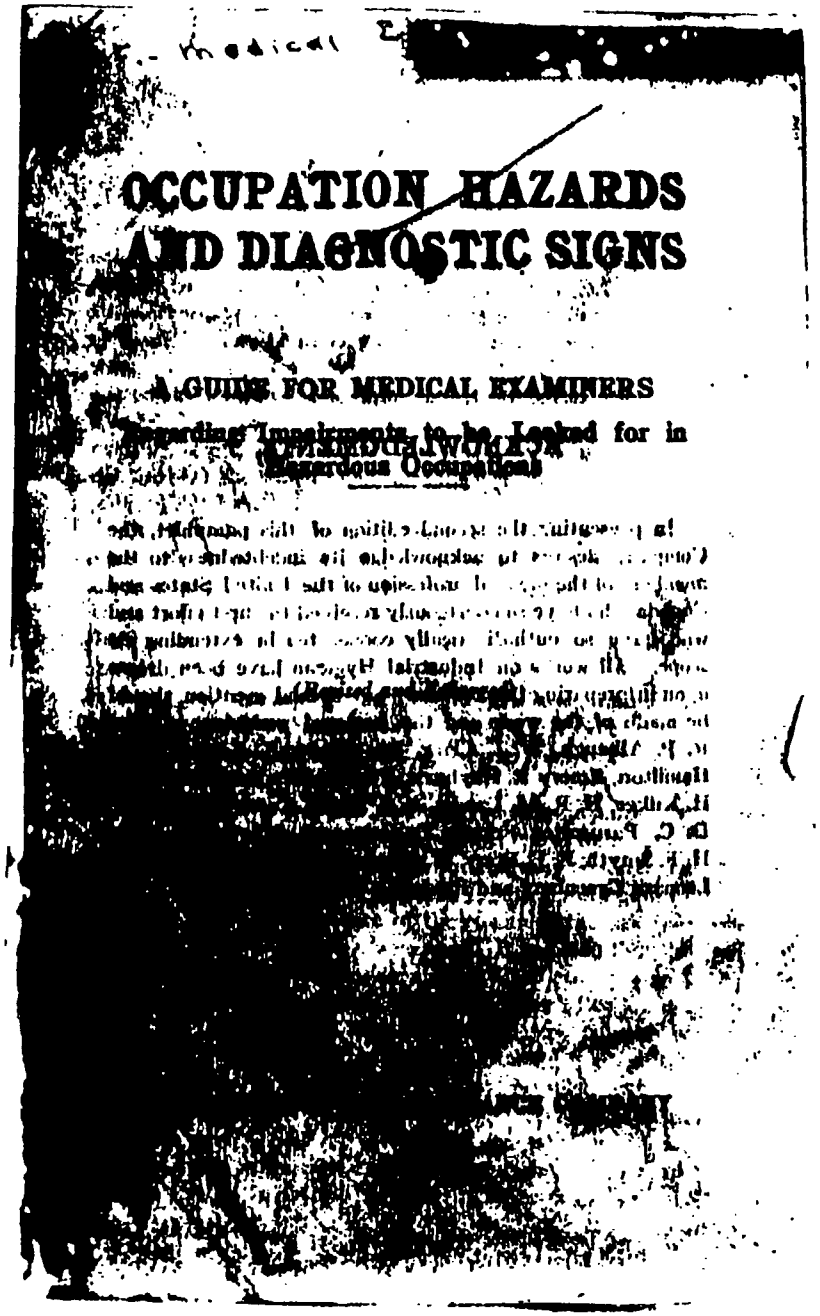

OCCUPATION HAZARDS AND DIAGNOSTIC SIGNS

A GUIDE FOR MEDICAL EXAMINERS

Regarding Impairments to be Looked for in Hazardous Occupations

PLAINTIFF'S EXHIBIT
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INTRODUCTION

Many occupations have injurious effects on the physical condition of those engaged in them. Those who work with poisons, such as lead, arsenic, mercury, picric acid, etc., or those who have been exposed for a long period to dust, heat or humidity may be impaired seriously as the result of their work. In many cases their condition is not manifest to the doctor. A more careful examination is required to determine whether the occupation has had the anticipated effect. The recognition of the more serious of these effects is important to the Medical Examiner when forming a judgment as to the insurability of the risk.

The Examiner should be careful to see if any of the usual diagnostic signs of poisoning, dust, heat or other hazards are in evidence. In the case of those exposed to lead—such as employees in storage battery plants, white lead workers, paint mixers, etc.—the blue line on the gum, the pale, sallow appearance and the trembling fingers are significant as indications of chronic lead poisoning. Physical symptoms and conditions which ordinarily may be passed by, become important when considered in this way in relation to the particular occupation.

Furthermore, it is often necessary to keep in mind not only the present occupation, but the former one as well. Foremen and supervisors applying for insurance may no longer be exposed to the hazards of their industry, but careful examination may reveal the presence of the effects of the previous occupation from which they have risen. It is hoped that the Examiners will give occupation findings their proper weight in the formation of judgments regarding physical condition.

In this pamphlet we have considered nine hazards of employment, namely: Extreme heat and sudden variations of temperature, compressed air, dampness, dust, extreme light, infections, poor illumination, shock, and the poisons. Long exposure to any of these will usually leave definite physical signs which the Examiner can discover if he will look for them. To aid the Examiner to discover the hazards

and their effects on the worker, we have prepared two lists below. The first consists of the more common hazardous occupations (pages 4 to 11). The second consists of the hazards together with their effects or symptoms (pages 12 to 30). After each occupation in the first list, we have referred in code to the particular hazard in the second list. The capital letters after each occupation, A, B, C, etc., refer to the general hazard. The Arabic numerals signify the particular hazard, as D 1, Inorganic Dust; D 2, Organic Dust. The following are illustrations:

Guncotton wringers, J 37.

J refers to the general hazard, Poisons; 37 to the particular poison, Nitrous Gases, which cause the following symptoms that can be observed by you: Irritation of air passages, cough, labored respiration, inflammation of the eyes, corrosion of the teeth, erosion and perforation of nasal septum.

Patent leather makers, A 2, J 5, 16, 28, 30, 48, 52.

A and J refer to the general hazards, Abnormalities of Temperature and Poisons respectively; and the Arabic numerals refer to the particular hazard under each. Thus, A 2 refers to Sudden Variations of Temperature; J 5, Amyl Acetate; J 16, Carbon Monoxide; J 28, Lead and Its Compounds; J 30, Methyl Alcohol; J 48, Sulphuric Acid; J 52, Turpentine. The symptoms for each of these hazards are listed in the second column.

The following procedure is therefore recommended. The Medical Examiner, on obtaining the occupation of the applicant, should look for it in the Alphabetical List of Hazardous Occupations below. If found there, he should make special effort to discover the symptoms or signs referred to in the second list.

ALPHABETICAL LIST OF HAZARDOUS OCCUPATIONS

Acetylene makers, D 1, J 4, 16, 48.
Acid dippers, C, J 10, 22, 26, 37, 48.
Acid finishers (glass), J 26, 28, 48.
Acid makers, see particular acid.
Acid mixers, J 26, 37, 48.
Acid recoverers, J 26, 37, 48.
Acid transporters, J 26, 37, 48.
Airplane wing varnishers, see also varnishers, J 50.
Alcohol distillery workers, J 5, 6.

Aldehyde pumpmen, J 1, 30.
Alkali salt makers, C, J 14, 18, 26, 46, 47.
Amber workers, J 28.
Ammonium salts makers, A 1, J 4, 15, 22, 26, 48.
Ammonium sulphate makers, J 48.
Aniline dye makers, see dye makers.
Aniline makers, J 7, 10, 12, 26, 34, 37.
Animal hair dressers, see hair workers.
Animal handlers, F 1, 3.
Annealers, A 1.
Antimony extractors (refiners), A 1, J 8.
Antimony fluoride extractors, J 27.
Antipyrin makers, J 21, 40.
Arsenic roasters, A 1, J 9.
Art glass workers, J 5, 11, 27, 28, 30, 52.
Artificial flower makers, H, J 9, 21, 28, 29, 30.
Artificial ice makers, A 2, C, J 4.
Artificial leather makers, J 7, 9, 12, 37, 48.
Artificial manure makers, see fertilizer makers.
Artificial silk makers, C, J 4, 5, 15, 30, 47, 50.
Asbestos workers, D 1.
Asphalt testers, J 15.
Auto painters, see also painters, C.

Babbitters, J 28.
Bakelite makers, J 30.
Bakers, A 2, D 2, J 16
Balloon (toy) fillers, J 10.
Barbers, H.
Bar mill workers (iron and steel), A 1.
Basic slag (artificial manure) workers, D 1.
Batch makers (glass works), see glass mixers.
Batch makers (rubber works), see compounders (rubber).
Beters (tannery), C, F 1.
Battery (dry) makers, D 1, J 5, 10, 12, 21, 26, 28, 29, 49.
Battery (storage) makers, see storage battery makers.
Beamers (textile), D 2.
Beamhouse workers (tannery), C, F 1.
Beatermen (paper and pulp), C, J 18.
Bed rubbers (marble and stone), D 1.
Bench molders (foundry), D 1, J 13, 28.
Benzol stillmen, A 1, J 13.
Bessemer converter workers (iron and steel), A 1.
Beta still operators (beta naphthol), A 1, J 48.
Bevellers, D 1.
Bicyclists, H.
Billet mill workers (iron and steel), A 1.
Biscuit kiln workers, A 1, D 1, J 16.
Blacksmiths, A 1, E, H, J 14, 16, 22, 28.
Blast furnace workers, A 1, J 22, 46, 47.
Bleachers, A 2, C, J 17, 18, 21, 27, 37, 46.
Bleachers (cloth), A 2, C.
Bleachery dryers, A 2, C.
Blockers (felt hat), C, J 16.
Blooders (tannery), J 28.
Blooming mill workers (iron and steel), A 1.
Blowers (felt hat), D 2, J 29.
Blowers (glass manufacturing), see glass blowers.
Blowers-out (zinc smelting), A 1, J 13.
Bluers (revolvers), A 1.
Boiler room workers, A 1, J 14, 16.
Boiler washers, C.
Bone-black makers, J 4, 42.
Bone readers, J 3.
Bone workers, D 1.
Bookbinders, J 9, 28, 30.
Bottle cap makers, J 28.
Brass founders, A 1, J 8, 9, 13, 14, 16, 28, 42, 46.
Brass polishers, J 28.
Brasiers, A 1, J 13, 28.
Brewers, A 2, C, J 14.
Brick burners, A 1, J 14, 28.
Brickmakers, A 1, C, D 1, F 2, J 28, 46.
Briquet makers, J 49.
Bronzers, D 1, J 4, 5, 9, 10, 11, 12, 13, 28, 28, 29, 30, 47.
Broom makers, D 2, J 16, 46.
Browners (gun barrels), J 22, 28, 29, 38.
Brushers (felt hat), D 2, J 29.
Brush makers, D 2, F 1, J 28, 30, 49.
Buffers, D 1, 2, C.
Buffers (rubber), J 5, 11, 28.
Burners (enameling), A 1, J 26.
Burnishers (iron and steel), G, J 8, 48.
Burnishers (rifle barrels), J 8.
Burrers (needles) D 1.
Burr filers, D 1.
Butchers, A 2, F 1, 3.
Button makers, D 1, 2.

Cable makers, J 28.
Cable splicers, C, J 16, 28, 47, 52.
Caisson workers, A 2, B, C, G, J 14.
Calenderers (rubber), A 2, D 1.
Calico printers, A 2, C, J 7, 8, 9, 16, 18, 21, 22, 26, 28, 30, 39, 48, 52.
Camphor makers, J 26, 52.
Candle (colored) makers, J 9, 21.
Candy makers, A 2, C.
Canners, A 2, C, F 3, J 28.
Cap loaders, J 29.
Cappers (window glass), A 1.
Carbide makers, A 1, D 1, J 16.
Carbolic acid makers, J 12, 26, 46, 48.
Carbon brush makers, D 1.
Carbon dioxide makers, J 14.
Carbon disulphide makers, J 15.
Carbonizers (shoddy), D 2, J 10, 26, 48.
Carborundum workers, A 1, D 1.
Carders (textile), D 2.
Card grinders (textile), D 1, 2.
Carpenters, H.
Carpet makers, D 2, F 1, J 9.
Carroters (felt hats), J 9, 29, 37.
Cartridge cup washers, C.
Cartridge dippers, J 26, 37, 48.
Cartridge felt and wad makers, C.

Cartridge makers, J 28, 29.
Cartridge shot shell paraffin dippers, A 2, C.
Case hardeners, A 1, J 23.
Casters (brass foundry), see brass founders.
Casters (iron and steel), A 1.
Casting cleaners (foundry), see also acid dippers, D 1.
Cart scrubbers (electroplaters), J 11, 12.
Catchers (iron and steel), A 1.
Cattle salesmen, F 1.
Celluloid makers J 1, 5, 11, 15, 16, 23, 26, 30, 37, 47, 48.
Celluloid polishers, D 2.
Celluloid workers, D 2.
Cementers (rubber shoes), J 11, 12, 15, 30, 52.
Cement mixers (rubber), J 11, 12, 15.
Cement workers, A 1, D 1.
Chambermen (sulphuric acid), J 46, 48.
Charcoal burners, J 14, 16.
Charcoal workmen (sugar refining), A 2, C, D 1.
Chargers (smelting), A 1, D 1.
Chargers (zinc smelting), A 1, D 1, J 9, 13, 16, 28, 46.
Chasers (steel), D 1.
Chauffeurs, H, J 25.
Chimney sweepers, D 1, J 16, 49.
Chippers, D 1.
Chlorids of lime makers, J 17, 18.
Chlorine makers (electrolytic), J 18, 29.
Chloroform makers, J 17.
Chromium workers, J 21.
Cigar makers, D 2, H.
Clay and bisque makers (pottery), A 2, C, D 1.
Clay plug makers (pottery), C, D 1.
Clay products workers, see pottery workers.
Clerks, H.
Cloth preparers, see also bleachers, C.
Coal miners, see miners.
Coal tar workers, J 7, 13, 16, 30.
Cobblers, D 2, F 1, H.
Coke oven workers, A 1, J 4, 13, 16, 49.
Cold storage plant workers, A 2.
Color makers, A 1, D 1, J 8, 9, 12, 21, 28, 29.
Colored paper workers, J 9.
Colorers (white) of shoes, J 28.
Comb makers (celluloid), D 2.
Compositors, D 1, G, H, J 7, 8, 21, 26.
Compounders (rubber) D 1, J 7, 8, 9, 11, 12, 21.
Concentrating mill workers (lead and zinc), C, D 1, J 26.
Coners (felt hats), D 2, J 29.
Confectioners, see candy makers.
Construction camp workers, F 2.
Cooks, A 2.
Copper founders, J 9.
Copper miners, see miners.
Copper smelters, A 1, J 9, 16, 46.
Cord makers, D 2, J 49.
Core makers, A 1, D 1, J 12, 16.
Cork workers, D 2.
Cotton mill workers, C, D 2.
Cotton twisters, D 2, H.
Cranemen (glass industry), A 1.
Cranemen (iron and steel), A 1.
Creosoting plant workers, C.
Crucible mixers, D 1.
Crucible steel department employees, A 1.
Crushermen (clay and stone), D 1.
Cupola men (foundries), A 1.
Curers, vapor, (rubber), see vulcanizers.
Curriers (tannery), D 2, F 1, J 9, 11.
Cut glass workers, D 1, J 9, 28.
Cutlery makers, D 1, J 5, 28.
Cyanamid makers, A 1, D 1.

Dancers, H.
Decorators (pottery), J 9, 11, 12, 25, 52.
Degreasers (fertilizer, leather), J 11, 12, 26.
Dentists, J 29.
Detonator cleaners, J 29.
Detonator fillers, J 29.
Detonator packers, J 29.
Devil operators (felt hats), D 2, J 29.
Diamond cutters, D 1, H.
Diamond polishers, J 28.
Digester house workers (paper and pulp), A 2, C.
Dimethyl sulphate makers, J 16, 23, 30, 37, 48.
Dippers, see also acid dippers.
Dippers (guncotton), J 37.
Dippers (rubber), J 11.
Disinfectant makers, J 17, 18.
Divers, B.
Doffers (textile), C, D 2.
Dressers (glass), A 1.
Dresser tenders (textile), A 2, C.
Drivers, A 2, C.
Drop forgers, A 1.
Dry battery workers, see battery (dry) makers.
Dry cleaners, A 2, J 11, 12, 15, 30, 52.
Dryers (felt hats), A 2, J 30.
Dryers (rubber), J 12, 15.
Drying room workers (miscellaneous), A 2, J 14, 16.
Dye makers, A 2, C, J 1, 2, 4, 6, 7, 8, 9, 10, 12, 17, 18, 21, 23, 32, 36, 38, 39, 30, 31, 34, 39, 40, 41, 44, 46, 47, 48, 52.
Dyers, see also preparatory processes, A 2, C, J 4, 21, 25, 26, 27, 28, 30, 44.
Edison storage battery workers, J 26.
Electricians, E.
Electric linemen, E.
Electroplaters, C, J 9, 11, 12, 22, 28.
Electrotypers, see also electroplaters, A 2, D 1, J 28.
Elevator runners, H.
Embroidery workers, G, J 28.
Emery wheel makers, D 1, J 28.
Enamelers, see enamel makers.

Enamel makers, A 1, C, H, J 5, 8, 9, 10, 11, 15, 16, 21, 26, 28, 37, 52.
Engravers, see also steel engravers, D 1, H.
Etchers, J 27, 37, 39.
Explosives workers, see also particular occupation, C, J 1, 5, 7, 12, 29, 30, 34, 35, 37, 44, 48, 51.
Extractor operators (soap), A 2, C.

Farmers, F 1, 2.
Fat renderers, A 2, J 3.
Feather curers, D 2, J 9.
Feather workers, D 2, F 3, J 7, 9, 11, 12, 30, 38, 52.
Felt extractors, C.
Felt hat makers, see also particular occupation, A 2, C, D 2, J 9, 16, 29, 30, 37, 48.
Ferro-silicon workers, J 9, 10, 43.
Fertilizer makers, see also phosphate mill employees, C, D 1, F 1, 3, J 10, 13, 14, 36, 37, 37, 42, 46, 47, 48.
Fibre workers, D 2.
Filament makers (incandescent lamps), J 16, 30.
File cutters, D 1, J 28.
Filers, D 1, J 8, 28.
Film makers, see celluloid makers.
Filter press workers, C.
Finishers (incandescent lamps), J 16.
Finishers (leather), D 2.
Finishers (shoes), see shoe finishers.
Fireworks makers, see also explosives, J 8, 29, 42.
Fishermen, A 2, C.
Fitters (shoes), J 30.
Flangers (felt hats), A 2, J 16.
Flatteners (glass), A 1.
Flax rotters, workers, J 47.
Flax spinners, C, D 2.
Flint workers, D 1.
Floor molders (foundry), A 1, D 1, J 13, 26.
Flour workers, D 2.
Fluo cleaners, D 1, J 16, 46, 49.
Flush tenders (aluminum), C.
Forgemen, A 1.
Formers (felt hats), D 2.
Foundry workers, see also particular metal, A 1, D 1, J 16.
Fruit essence makers, J 6.
Fruit preservers, J 46.
Fulminate mixers, J 22, 29.
Fur cutters, D 2, F 1.
Fur slippers, D 2, F 1.
Fur cutters, D 2, F 1.
Fur handlers, F 1, J 9, 29.
Furnace workers, A 1, E, J 14, 16.
Furniture polishers, J 5, 11, 25, 30, 38, 52.
Fur preparers, D 2, F 1, J 9, 29, 37.
Fur pullers, D 2, F 1.

Galvanizers, C, J 3, 4, 9, 10, 13, 26, 28, 37, 46, 48.
Garage workers, J 16, 25.
Garbage workers, F 3.
Gardeners, J 9.
Gas (illuminating) workers A 1, J 4, 12, 16, 22, 30, 47, 49.
Gas purifiers, J 4, 22, 39, 47.
Gatherers (glass), A 1.
Gilders, J 8, 11, 12, 25, 30.
Glass blowers, A 1, D 1, E.
Glass cutters, C, D 1.
Glass finishers, C, D 1, J 26, 27, 28, 48.
Glass furnace workers, A 1, E.
Glass mixers, D 1, J 8, 9, 21, 26, 28.
Glass polishers, J 28.
Glaze dippers (pottery), C, J 8, 9, 21, 28.
Glaze mixers (pottery), D 1, J 8, 9, 21, 28.
Glost kiln workers, A 2, J 16, 28.
Glove makers (leather preparers), see also tannery workers, C, D 2.
Glue workers, A 2, C, D 2, F 3, J 4, 11, 12, 15, 26, 37, 46, 47.
Gold beaters, D 1, H.
Gold refiners, D 1, J 9, 22, 28, 29.
Grain elevator workers, D 2.
Granite workers, see stone cutters.
Graphite workers, A 1, D 1.
Grinders (colors), see color makers.
Grinders (metals), see C, D 1, J 8, 28.
Grinders (rubber), D 2, J 8, 28.
Guncotton dippers, J 37, 48.
Guncotton pickers, D 2.
Guncotton washers, C.
Guncotton wringers, J 37.
Gypsum workers, D 1.

Hair workers, C, D 2, F 1, 3.
Hammermen, H.
Hardeners (felt hats), J 29, 30.
Hardeners (metals), A 1.
Harness makers, D 2.
Hat makers (felt), see felt hat makers.
Heater boys (riveters), J 28.
Heel makers (shoes), D 2.
Hemp workers, D 2.
Horn workers, D 1.
Hothouse workers, A 2.
Hot rod rollers (iron and steel), A 1.
Hydrochloric acid makers, J 26, 48.

Ice (artificial) makers, see artificial ice makers.
Ice cream makers, A 2, C.
Imitation pearl makers, J 28, 37.
Incandescent lamp makers, see also particular occupation, J 5, 16, 28, 29, 30, 37.
Incandescent mantle hardeners, E.
Ink makers, J 21, 30.
Insecticide makers, J 9, 15, 28, 42.
Insulators, J 49.
Iron and steel workers (all departments), see also particular occupation, A 1.
Ironers, A 2.

Japan makers, A 2, J 9, 11, 28, 30, 52.
Japanners, see japan makers.

Jewelers, D 1, G, H, J 5, 9, 26, 28, 29, 37, 48.
Junk metal refiners, A 1, D 1, J 13, 28.
Jute workers, D 2.

Kiln tenders, A 1, J 16.
Knitters, H.
Knitting mill workers, D 2.

Labelers (paint cans), J 28.
Lace makers, D 2.
Lacquerers, see lacquer makers.
Lacquer makers, J 5, 11, 12, 25, 30, 52.
Lampblack makers, J 36, 39.
Lapidaries, D 1.
Lard makers, J 3.
Lasters (shoes), A 2, C, D 2, J 30.
Lathe turners, H.
Laundry workers, A 2, C, J 16, 17, 18.
Layer pullers (glass), A 1.
Lead burners, J 10, 28.
Lead foil makers, A 1, J 28.
Lead miners, see also miners, J 28.
Lead pipe makers, J 28.
Lead salts makers, J 28.
Lead smelters, A 1, D 1, J 8, 9, 16, 28, 46.
Leather workers, see also tannery workers, D 2, F 1.
Leer tenders (glass), A 1.
Letter sorters, H.
Levermen (iron and steel), A 1.
Lifters-over (glass), A 1.
Lime burners, D 1, J 10, 14, 16.
Lime kiln chargers, D 1, J 14, 16.
Lime pullers (tannery), C, F 1.
Lime workers, D 1.
Linen workers, D 2.
Linoleum colorers, J 9, 21.
Linoleum makers, A 2, C, D 1, J 3, 5, 11, 28, 30, 48, 52.
Linotypers, J 8, 28.
Linseed oil boilers, J 3, 28.
Lithographers, D 1, H, J 7, 9, 11, 12, 21, 28, 37, 52.
Litho-transfer workers, J 28.
Locksmiths, H.
Longshoremen, F 1.
Lumbermen, A 2, F 2.
Luters (zinc smelting), A 1, J 13.

Machinists, H.
Marble cutters, D 1.
Marblers (glass), A 1.
Masons, C, D 1, H.
Match factory workers, C, D 1, 2, J 15, 21, 28, 42, 47.
Mattress makers, D 2.
Meat inspectors, F 1.
Melters (foundry, glass), A 1.
Mercerizers, J 4, 48.
Mercurial vapor lamp makers, J 29.
Mercury bronzers, J 29.
Mercury miners, see also miners, J 29.
Mercury salts workers, J 29.
Mercury smelters, A 1, J 16, 29, 46.
Mercury solder makers, J 29.
Mercury still cleaners, J 29.
Metal polishers, G.
Metal polish makers, J 25.
Metal turners, D 1.
Metal workers, see particular occupation.
Mica strippers or splitters, D 1.
Mica workers, D 1.
Microscopists, H.
Millers, H.
Miners, A 2, C, D 1, F 2, G, H, J 14, 16, 37, 47.
Mirror silverers, A 2, C, J 1, 28, 29.
Mixers (felt hats), D 2, J 29.
Mixers (rubber), A 2, D 1, J 7, 8, 9, 11, 12, 21, 28.
Mixing room workers (miscellaneous), D 1, 2.
Mold breakers (foundry), D 1.
Molders, see bench molders, floor molders.
Monotypers, J 8, 28.
Mordanters, J 6, 8, 9, 11, 12, 21, 37.
Motion picture film makers, see celluloid makers.
Motormen, A 2.
Mottlers (leather), J 5, 30.
Moving picture machine operators, E.
Muffle tenders, A 1.
Muriatic acid makers, see hydrochloric acid makers.
Muriatic acid mixers, see acid mixers.
Musical instrument makers, J 28.
Musicians, H.

Nickel platers, see also electroplaters, C.
Nitrators, J 37, 48.
Nitric acid workers, J 28, 37, 46.
Nitroglycerin makers, J 10, 28, 35, 37, 48.

Oilcloth makers, see linoleum makers.
Oil extractors, J 15.
Oil flotation plant workers, J 36, 46, 47, 48.
Oil refiners, see petroleum refiners.
Oil well workers, J 36.
Open hearth department workers (iron and steel), A 1.
Oxy-acetylene cutters, E.

Packing house employees, A 2, C.
Painters, H, J 7, 11, 12, 25, 28, 29, 52.
Paint makers, C, J 7, 11, 12, 15, 28, 29, 30, 49, 52.
Paint removers, D 1, J 28.
Pair heaters (tinplate), A 1.
Paper box makers, H.
Paper glazers, J 9.
Paperhangers, D 1, J 9, 21, 28.
Paper makers, see also rag workers, A 2, C.
Paraffin workers, J 15, 28, 49.
Patent leather makers, A 2, J 5, 16, 28, 30, 48, 52.
Pavers, A 1, H, J 49.
Pencil (colored) makers, J 7, 9, 21.
Perfume makers, J 23, 30, 34.
Petroleum refiners, A 1, C, J 25, 30, 28, 36, 44, 47, 48, 49.
Phenol makers, see carbolic acid makers.
Phosgene makers, J 18, 18, 41.

Phosphate mill workers, see also fertilizer makers, A 2, C, D 1, J 42.
Phosphor-bronze workers, J 42.
Phosphorus compounds makers, J 42.
Phosphorus evaporating machine operators, A 2, C, J 48.
Phosphorus extractors, J 42, 43.
Phosphorus (red) makers, J 43.
Photoengravers, J 12, 21, 30, 37.
Photographers, E, G, J 30, 44.
Photographic workers, J 7, 12, 18, 21, 22, 29.
Photograph retouchers, J 28.
Picklers, C, J 10, 22, 26, 37, 48.
Picric acid makers, J 37, 39, 44, 48.
Pigment makers, see color makers.
Pipefitters, see also liquid piped, J 28.
Pitch workers, J 9.
Pit molders (foundry), A 1, D 1.
Planer men (stone, metal), D 1.
Plasterers, C, D 1.
Plaster of Paris workers, D 1.
Platers, see electroplaters.
Plumbers, see also substances manufactured, J 28.
Pneumatic tool workers, D 1, H.
Polishers, D 1, J 5, 25, 28, 30.
Polishers (furniture), see furniture polishers.
Porcelain makers, see pottery.
Porters, H.
Pot fillers (glass), A 1.
Pot lifters (iron and steel), A 1.
Pot pullers (foundry), A 1.
Pot room workers (aluminum foundry, carbide plant), A 1.
Pot setters, A 1.
Pottery workers, see also particular occupation, A 1, C, D 1, J 9, 14, 16, 26, 28, 46.
Pouncers (felt hats), D 1, 2.
Pourers (brass foundry), A 1, J 13.
Preparers (tannery), C, F 1, 3.
Pressers, H, J 16.
Pressman (oil refining), C.
Pressmen (printers), D 1.
Pressroom workers (rubber), A 2, J 7, 8, 9, 11, 12, 21.
Primers (explosives), J 29.
Printers, D 1, J 7, 8, 9, 11, 28, 52.
Puddlers (iron and steel), A 1, E.
Pullers-out (felt hats), C.
Pulp mill employees, see also particular occupation, C.
Putty makers, D 1, J 11, 15, 28.
Putty polishers (glass), D 1, J 28.
Pyrites burners, A 1, D 1, J 9, 46, 47.
Pyroxylin makers, see guncotton.

Quarrymen, D 1, F 2.

Rag workers, D 2, F 3.
Reclaimers (rubber), J 7, 12, 15, 26, 28, 48.
Red lead workers, J 28.
Refiners (metals), see also particular metal, A 1, J 9, 10, 16, 28, 29, 37, 46.
Refiners (sugar), see sugar refiners.
Refrigerating plant workers, A 2, C, J 4.
Rivetors, H, J 28.
Roller coverers (cotton mills), C, D 2.
Rollers (metals), A 1.
Roll setters (iron and steel), A 1.
Roll wrenchers (iron and steel), A 1.
Roofers, A 2, J 28, 49.
Roofing paper workers, J 49.
Ropemakers, D 2.
Roughers (iron and steel), A 1.
Rubber glove makers, J 11.
Rubber substitute makers, J 45.
Rubber tire builders, J 9, 11, 12, 21.
Rubber washers, J 9, 11, 12, 21.
Rubber workers, see also particular occupation, A 2, D 1, 2, J 7, 8, 9, 11, 12, 21, 25, 26, 28, 30, 46, 52.

Nagger makers, C, D 1, J 28.
Sailors, A 2, H.
Salt extractors (coke oven by-products), J 4, 48.
Salt preparers, A 2, C, D 1.
Sand blasters, D 1.
Sand cutters, D 1.
Sanders, D 1.
Sanding machine operators, D 1.
Sandpaperers (enameling and painting auto bodies, etc.), D 1, J 28.
Saw filers, D 1.
Saw mill workers, D 2, F 2.
Sawyers, H.
Scissors sharpeners, H.
Scourers, wood lasts (shoes), D 2.
Scrapers (foundry), D 1.
Screen tenders (pulp mill), C.
Screen workers (lead and zinc smelting), D 1, J 28.
Sealers (incandescent lamps), J 16.
Sealing wax makers, J 9, 52.
Seamstresses, H.
Sewer workers, C, J 4, 14, 47.
Sewing machine operators, H.
Shale oil workers, see petroleum refiners.
Shavers (felt hats, fur, tannery), C, D 2, F 1, 3.
Shaving brush makers, D 2, F 1.
Sheep dip makers, J 9.
Sheet metal workers, J 28.
Shellackers, see shellac makers.
Shellac makers, J 4, 5, 11, 12, 28, 30, 52.
Shell filers, J 35, 44, 51.
Shepherds, F 1.
Shoddy workers, D 2, F 3, J 10, 28, 48.
Shoe factory operatives, see also particular occupation, D 2, J 5, 12, 30.
Shoe finishers, A 2, J 4, 5, 9, 11, 12, 25, 30.
Shoe makers, see cobblers.
Shot makers, J 8, 9, 28.
Shove-in boys (glass), A 1.
Sifters, D 1, 2.
Silicate extractors, J 27.
Silk workers, D 2, F 3.
Silo workers, J 14.
Silverers (mirrors), see mirror silverers.

Silver melters, A 2, J 16.
Silver refiners, J 22.
Singers (cloth), J 16.
Sintering plant workers, D 1.
Sizers (felt hats), C, J 29.
Skimmers (glass), A 1.
Slag machine tenders (iron and steel), A 1.
Slate workers, D 1.
Slip makers (pottery), C, D 1, J 28.
Slushers (porcelain enameling), J 28.
Smelters, see particular metal.
Smokeless powder makers, J 5, 12, 15, 34, 36, 44.
Smoothers (glass), C, D 1.
Soap makers, A 2, C, F 3, J 3, 20, 34.
Soda makers, C, J 4, 14, 16, 37, 47.
Sodium hydroxide makers, C.
Sodium sulphide makers, J 47.
Softeners (tannery), D 2.
Solderers, J 26, 28.
Sole stitchers (Blake machine), J 29.
Spinners (asbestos), D 1.
Spinners (textiles), D 2, H.
Spongers, C.
Sprayers (trees), J 9, 26.
Spreaders (rubber works), A 2.
Stablemen, F 1.
Stainers (shoes) J 28.
Stamp mill workers, C, D 1.
Starch makers, D 2, J 14, 47.
Starters (felt hats), C, J 29.
Statuary workers, D 1.
Steam fitters, see pipe fitters.
Stearic acid makers, A 2, J 3.
Steel engravers, see also engravers, C, J 28, 29, 37.
Stereotypers, A 2, J 8, 28.
Stiffeners (felt hats), J 29, 30.
Still (coal-tar) cleaners, A 1, J 12, 49.
Stillmen (carbolic acid), A 1, J 39.
Stillmen operating, A 1.
Stitchers (shoes), J 30.
Stokers, A 1, E, J 16.
Stone cutters (dry) D 1, H.
Stone cutters (wet process), C, D 1, H.
Storage battery makers, J 28, 29, 46, 48.
Straw hat makers, A 2, D 2.
Submarine(storage battery)workers, J 10.
Sugar refiners, A 2, C, D 1, J 4, 14, 46, 47.
Sulphite cooks (pulp mill), A 2, C, J 46.
Sulphur burners, A 1, D 1, J 9, 46.
Sulphur chloride makers, J 16, 26.
Sulphurers (hops and malt), J 46.
Sulphur extractors, J 15.
Sulphuric acid workers, J 9, 10, 28, 37, 46, 48.
Sumacers (tannery), C, F 1.
Surgical dressing makers, J 30.

Table hands (tannery), C, F 1.
Table operators (iron and steel), A 1.
Table turners (enameling), A 2, D 1, J 28.
Tailors, H.
Takers-down (glass), A 1.
Tallow refiners, F 3, J 3, 15, 48.
Tank men, C.
Tannery workers, C, F 1, 2, J 7, 9, 11, 17, 21, 22, 28, 46, 47, 48.
Tapers (airplanes), J 50.
Tappers (smelting), A 1.
Tar workers, J 49.
Taxidermists, D 2, F 1, J 9, 29.
Teasers (glass), A 1, J 16.
Telegraphers, H.
Telephone linemen (trench work), C.
Temperers, A 1, C, J 16, 22, 28, 38, 48.
Textile comb makers, D 1.
Textile printers, see calico printers.
Textile workers, A 2, C, D 2.
Thermometer makers, J 29.
Thread glazers, A 2, C.
Tile makers, A 2, C, D 1, J 28.
Tin foil makers, A 1, J 26.
Tinners, A 1, C, J 2, 4, 9, 10, 26, 28.
Tinplate mill workers, see iron and steel workers.
Tire builders, see rubber tire makers.
Tobacco moistoners, C.
Tobacco rollers, D 2.
Tobacco workers, D 2.
Toolsmen (iron and steel), A 1.
Tool makers, D 1.
Top fillers (foundry), A 1, D 1.
Towerman (sulphuric acid), J 10, 37, 46, 48.
Toy makers, J 5, 9, 26.
Transfer workers (pottery), J 28, 53.
Transporters of hides and wool, F 1.
Treaders (rubber), J 12.
Tree sprayers, see sprayers (trees).
Trench diggers, F 2.
Tubemakers (glass), A 1.
Tubulators (incandescent lamps), J 16.
Tumbling barrel workers, D 1.
Tunnel workers, B, F 2, G.
Turners-out (glass), A 1.
Turpentine extractors, C, J 52.
Type cleaners, J 11, 30.
Type founders, J 28.
Typesetters, J 28.
Typists, H.

Upholsterers, D 2, J 30.

Vapor curers, see vulcanizers.
Varnish boilers, J 3.
Varnish makers, A 2, J 1, 3, 4, 11, 12, 30, 53.
Vatmen, C.
Velvet makers, C, J 9.
Veterinarians, F 1, 2.
Vignetters, J 28.
Vinegar workers, J 1.
Vintors, J 14.
Vulcanizers, A 2, C, J 7, 8, 11, 12, 15, 21, 30, 45.
Vulcanizers (steam), A 2, C.
Wallpaper printers, A 2, C, J 9, 21, 28.
Warming house employees (gunnetton), A 2.
Washers, C.
Washers (rubber), C.
Washwomen, C, H.

Watchmakers, G, H.
Water gilders, J 29.
Waterproof cloth makers, J 25.
Weavers, D 2, H.
Weighers, D 1, 2.
Welders, A 1, E, J 13, 26.
White lead workers, J 14, 28.
Wire drawers, J 9, 48.
Wirers (incandescent lamps), J 5.
Wood alcohol distillers, J 30.
Woodlast scourers (shoes), D 2.
Wood preservers, J 9, 39, 49.
Wood stainers, J 21, 28.
Woodworkers, D 2, J 25, 30.
Wool carders, D 2, F 1.
Wool scourers, A 2, C.
Wool spinners, D 2, F 1.
Wool workers, see also particular occupation, D 2, F 1.
Wringers (guncotton), J 37.

X-ray workers, E.

Yeast makers, J 14.

Zinc chloride makers, J 10, 18, 26.
Zinc electrode makers, J 26.
Zinc miners, see also miners, J 9.
Zinc smelters, A 1, J 13, 16, 28, 46.

LIST OF HAZARDS, THEIR SYMPTOMS, AND OCCUPATIONS AFFECTED.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
A. ABNORMALITIES OF TEMPERATURE		
1. Extreme Dry Heat.	Anemia, general debility, catarrh, stiff joints, cramps, lumbago, Bright's disease, skin eruptions, premature old age, cataracts, retinitis, conjunctivitis.	Ammonium salts makers, Annealers, Antimony extractors (refiners), Arsenic roasters, Bar mill workers (iron and steel), Bessel still-

OCCUPATIONS EXPOSED TO A1—Continued.

men, Bessemer converter workers (iron and steel), Beta still operators (beta napthol), Billet mill workers (iron and steel), Bisque kiln workers, Blacksmiths, Blast furnace workers, Blooming mill workers (iron and steel), Blowers-out (zinc smelting), Blowers (revolvers), Boiler room workers, Brass founders, Brasiers, Brick burners, Brickmakers, Burners, (enameling), Cappers (window glass), Carbide makers, Carborundum makers, Case hardeners, Casters (iron and steel), Catchers (iron and steel), Cement workers, Chargers (smelting), Chargers (zinc smelting), Coke oven workers, Color makers, Copper smelters, Core makers, Cranemen (glass industry), Cranemen (iron and steel), Crucible steel department employees, Cupola men (foundries), Cyanamid makers, Dressers (glass), Drop forgers, Enamelers, Flatteners (glass), Floor molders (foundry), Forgemen, Foundry workers, Furnace workers, Gatherers (glass), Glass blowers, Glass furnace workers, Graphite workers, Hardeners (metals), Hot rod rollers (iron and steel), Iron and steel workers (all departments), Junk (metal) refiners, Kiln tenders, Layer pullers (glass), Lead foil makers, Lead smelters, Leer tenders (glass), Levermen (iron and steel), Lifters-over (glass), Luters (zinc smelting), Marblers (glass), Melters (foundry, glass), Mercury smelters, Muffle tenders, Open hearth department workers (iron and steel), Pair heaters (tinplate), Pavers, Petroleum refiners, Pit molders (foundry), Pot fillers (glass), Pot lifters (iron and steel), Pot pullers (foundry), Pot room workers (aluminum foundry, carbide plant), Pot setters, Pottery workers, Pourers (brass foundry), Puddlers (iron and steel), Pyrites burners, Refiners (metals), Rollers (metals), Roll setters (iron and steel), Roll wrenchers (iron and steel), Roughers (iron and steel), Shove-in boys (glass), Skimmers (glass), Slag machine tenders (iron and steel), Still (coal-tar) cleaners, Stillmen (carbolic acid), Stillmen operating, Stokers, Sulphur burners, Table operators (iron and steel), Takers-down (glass), Tappers (smelting), Teasers (glass), Temperers, Tin foil makers, Tinners, Tongsmen (iron and steel), Topfillers (foundry), Tubemakers (glass), Turners-out (glass), Welders, Zinc smelters.

2. Sudden Variations of Temperature.	Congestion of internal organs, catarrh, neuralgic and rheumatic affections, gastro-intestinal and vesical catarrh, pneumonia, Bright's disease.	See also occupations exposed to extreme dry heat. Artificial ice makers, Bakers, Bleachers Brewers, Butchers, Caisson workers, Calenderers (rubber),

OCCUPATIONS EXPOSED TO A2—Continued.

Calico printers, Candy makers, Canners, Cartridge shot shell paraffin dippers, Charcoal workers (sugar refining), Clay and bisque makers (pottery), Cold storage plant workers, Cooks, Digester house workers (paper and pulp), Dresser tenders (textile), Drivers, Dry cleaners, Dryers (felt hats), Drying room workers (miscellaneous), Dye makers, Dyers, Electrotypers, Extractor operators (soap), Fat renderers, Felt hat makers, Fishermen, Hangers (felt hats), Gas (illuminating) workers, Glost kiln workers, Glue workers, Hothouse workers, Ice cream makers, Ironers, Japan makers, Lasters (shoes), Laundry workers, Linoleum makers, Lumbermen, Miners, Mirror silverers, Mixers (rubber), Motormen, Packing house employees, Paper makers, Patent leather makers, Phosphate mill workers, Phosphorus evaporating machine operators, Press room workers (rubber), Refrigerating plant workers, Roofers, Rubber workers, Sailors, Salt preparers, Shoe finishers, Silver melters, Soap makers, Spreaders (rubber works), Stearic acid makers, Stereotypers, Straw hat makers, Sugar refiners, Sulphite cooks (pulp mill), Table turners (enamelings), Textile workers, Thread glasers, Tilemakers, Varnish makers, Vulcanizers, Wallpaper printers, Warming house employees (guncotton), Wool scourers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
B. COMPRESSED AIR	Weakness, vertigo, pains in the back and legs, paralysis of legs and arms, painful constriction of the chest, cerebral hemorrhage and aphasia, coma, subcutaneous hemorrhages, impairment of hearing.	Caisson workers, Divers, Tunnel workers.
C. DAMPNESS	Diseases of the respiratory passages, neuralgic and rheumatic affections.	Acid dippers, Alkali salt makers, Artificial ice makers, Artificial silk makers,

OCCUPATIONS EXPOSED TO C Continued.

Auto painters, Bakers (tannery), Beamhouse workers (tanners), Bestermen (paper and pulp), Bleachers, Blueberry dryers, Blockers (felt hats), Boiler washers, Brewers, Brickmakers, Cable splicers, Caisson workers, Calico printers, Candy makers, Canners, Cartridge cup washers, Cartridge felt and wad makers, Cartridge shot shell paraffin dippers, Charcoal workers (sugar refining), Clay and bisque makers (pottery), Clay plug makers (pottery), Cloth preparers, Concentrating mill workers (lead and zinc), Cotton mill workers, Creosoting plant workers, Digester house workers (paper and pulp), Doffers (textile), Dresser tenders (textile), Drivers, Dye makers, Dyers, Electroplaters, Enamelers, Explosives workers, Extractor operators (soap), Felt extractors, Felt hat makers, Fertilizer makers, Filter press workers, Fishermen, Flax spinners, Flush tenders (aluminum), Galvanizers, Glass cutters, Glass finishers, Glaze dippers (pottery), Glove makers (leather preparers), Glue workers, Grinders (metals), Guncotton washers, Hair workers, Ice cream makers, Lasters (shoes), Laundry workers, Lime pullers (tannery), Linoleum makers, Masons, Match factory workers, Miners, Mirror silverers, Nickel platers, Packing house employees, Paint makers, Paper makers, Petroleum refiners, Phosphate mill workers, Phosphorus evaporating machine operators, Picklers, Plasterers, Pottery workers, Preparers (tannery), Pressmen (oil refining), Pullers-out (felt hats), Pulp mill employees, Refrigerating plant workers, Roller coverers (cotton mills), Sagger makers, Salt preparers, Screen tenders (pulp mill), Sewer workers, Shavers (felt hats, fur, tannery), Sizers (felt hats), Slip makers (pottery), Smoothers (glass), Soap makers, Soda makers, Sodium hydroxide makers, Spongers, Stamp mill workers, Starters (felt hats), Stone cutters (wet process), Sugar refiners, Sulphite cooks (pulp mill), Summers (tannery), Table hands, (tannery), Tank men, Tannery workers, Telephone linemen (trench work), Temperers, Textile workers, Thread glasers, Tile makers, Tinners, Tobacco moistenors, Turpentine extractors, Vatmen, Velvet makers, Vulcanizers (steam), Wallpaper printers, Washers, Washers (rubber), Wool scourers.

D. DUST		
1. Inorganic Dust.	Cough, dyspnea, pleuritic pains, hemoptysis, clubbed fingers, marked flatness of chest, deficient expansion (unilateral), dulness, diminished resonance, mucous	Acetylene makers, Asbestos workers, Basic slag (artificial manure) workers, Battery (dry) makers, Bedrubbers (marble and stone), Bench molders (foundry),

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
D. Dust—Cont'd		
1. Inorganic Dust – *Continued.*	rales, fibrosis, inflammatory condition of eyes, ears, nose and throat; colds, chronic catarrh of respiratory tract, chronic catarrh of digestive tract, pleurisy, tuberculosis.	Bevellers, Bisque kiln workers, Bone workers, Brickmakers, Bronzers, Buffers, Burrers (needles), Burr fibers, Button makers, Calenderers (rubber), Carbide makers, Carbon brush
OCCUPATIONS EXPOSED TO D1—Continued.		
makers, Carborundum workers, Card grinders (textiles), Casting cleaners (foundry), Cement workers, Charcoal workers (sugar refining), Chargers (smelting), Chargers (zinc smelting), Chasers (steel), Chimney sweepers, Chippers, Clay and bisque makers (pottery), Clay plug makers (pottery), Color makers, Compositors, Compounders (rubber), Concentrating mill workers (lead and zinc), Core makers, Crucible makers, Crushermen (clay and stone), Cut glass workers, Cutlery makers, Cyanamid makers, Diamond cutters, Electrotypers, Emery wheel makers, Engravers, Fertilizer makers, File cutters, Fibre, Flint workers, Floor molders (foundry), Fine cleaners, Foundry workers, Glass blowers, Glass cutters Glass finishers, Glass mix-	ers, Glaze mixers (pottery), Gold beaters, Gold refiners, Graphite workers, Grinders (metals), Gypsum workers, Horn workers, Jewelers, Junk (metal) refiners, Lapidaries, Lead smelters, Lime burners, Lime kiln chargers, Lime workers, Linoleum makers, Lithographers, Marble cutters, Masons, Match factory workers, Metal turners, Mica strippers or splitters, Mica workers, Miners, Mixers (rubber), Mixing room workers (miscellaneous), Mold breakers (foundry), Paint removers, Paperhangers, Phosphate mill workers, Pit molders (foundry), Planer men (stone, metal), Plasterers, Plaster of Paris workers, Pneumatic tool workers, Polishers, Pottery workers, Pounsers (felt hats), Pressmen (printers), Printers, Putty makers,	Putty polishers (glass), Pyrites burners, Quarrymen, Rubber workers, Sagger makers, Salt preparers, Sand blasters, Sand cutters, Sanders, Sanding machine operators, Sandpaperers (enameling and painting auto bodies, etc.), Saw filers, Scrapers (foundry), Screen workers (lead and zinc smelting), Sifters, Sintering plant workers, Slate workers, Slip makers (pottery), Smoothers (glass), Spinners (asbestos), Stamp mill workers, Statuary workers, Stone cutters (dry), Stone cutters (wet process), Sugar refiners, Sulphur burners, Table turners (enameling), Textile comb makers, Tile makers, Tool makers, Topfillers (foundry), Tumbling barrel workers, Weighers.
2. Organic Dust.	Dryness of nose, throat and mouth, cough, anaphylaxis, asthma, bronchitis, emphysema, tuberculosis.	Bakers, Beamers (textiles), Blowers (felt hats), Broom makers, Brushers (felt hats), Brush makers Buffers,
OCCUPATIONS EXPOSED TO D2—Continued.		
Button makers, Carbonizers (sheddy), Carders (textiles), Card grinders (textiles), Carpet makers, Celluloid polishers, Celluloid workers, Cigar makers, Cobblers, Comb makers (celluloid), Coners (felt hats), Cork workers, Cotton mill workers, Cotton twisters, Curriers (tannery), Devil operators (felt hats), Dollers (textiles), Feather curers, Feather workers, Felt hat makers, Fibre workers,	Finishers (leather), Flax spinners, Flour workers, Formers (felt hats), Fur carders, Fur clippers, Fur cutters, Fur preparers, Fur pullers, Glove makers (leather preparers), Glue workers, Grain elevator workers, Grinders (rubber), Gunscotton pickers, Hair workers, Harness makers, Heel makers (shoe), Hemp workers, Jute workers, Knitting mill workers, Lace makers, Lasters (shoes),	Leather workers, Linen workers, Match factory workers, Mattress makers, Mixers (felt hats), Mixing room workers (miscellaneous), Pounsers (felt hats), Rag workers, Roller coverers (cotton mills), Ropemakers, Rubber workers, Saw mill workers, Scourers, wood lasts (shoes), Shavers (felt hats, furs, tannery), Shaving brush makers, Shoddy workers, Shoe factory operatives, Sifters, Silk

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
OCCUPATIONS EXPOSED TO D2—Continued.		
workers, Softeners (tannery), Spinners (textiles), Starch makers, Straw hat makers, Taxidermists,	Textile workers, Tobacco rollers, Tobacco workers, Upholsterers, Weavers, Weighers, Wood last scour-	ers (shoes), Wood workers, Wool carders, Wool spinners, Wool workers.
E. EXTREME LIGHT	Cataracts, retinitis, conjunctivitis, dermatitis, ulceration and exfoliation of the skin, electrical ophthalmia, cancer.	Blacksmiths, Electricians, Electric linemen, Furnace workers, Glass blowers, Glass furnace workers, Incandescent mantle hardeners, Moving picture machine operators, Oxy-acetylene cutters, Photographers, Puddlers (iron and steel), Stokers, Welders, X-ray workers.
F. INFECTIONS		
1. Anthrax.		
External.	1. Malignant pustule. Begins as inflamed pimple or boil. Papule becomes hard, with a purple center and deep red zone of infiltration surrounding, appearance of minute vesicular areola. Central papule becomes vesicular, discharges thick bloody serum, later forming a brown gangrene. A painful lymphangitis with hard edema extending over neck and arm. Local phlebitis in the edematous area, chilliness, anorexia, vomiting, prostration, high temperature, feeble pulse.	Animal handlers, Baters (tannery), Beamhouse workers (tannery), Brush makers, Butchers, Carpet makers, Cattle salesmen, Cobblers, Curriers, Farmers, Fertilizer makers, Fur carders, Fur clippers, Fur cutters, Fur handlers, Fur preparers, Fur pullers, Hair workers, Leather workers, Lime pullers (tannery), Longshoremen, Meat inspectors, Preparers (tannery), Shavers (felt hats, fur, tannery), Shaving brush makers, Shepherds, Stablemen, Sumacers (tannery), Table hands (tannery), Tannery workers, Taxidermists, Transporters of hides and wool, Veterinarians, Wool carders, Wool spinners, Wool workers.
	2. Malignant edema — A spreading inflammation of loose connective tissue accompanied by sloughing and gangrene. Constitutional symptoms those of pyemia.	
Internal.	High fever, pains in head and back, vomiting, constipation, pain and tenderness in the abdomen, rapid, feeble pulse, palpable spleen, dyspnea, cyanosis. May be hemorrhage from bowels. When lungs are involved, we have additional symptoms—cough, pain in the chest, suffocation.	

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
F. INFECTIONS—Cont'd.		
2. Hookworm. (Ankylostomiasis)	Anemia, pallor of the face even when the blood count is not very low; a dull, heavy, listless expression, manner, speech, and gait; increasing muscular weakness, occurrence of parasites in stool. Victims often complain of gastro-intestinal pains and cramps. In exaggerated cases there are edema, ascites, progressive emaciation, protuberant abdomen and increasing stupor.	Brick makers, Construction camp workers, Farmers, Lumbermen, Miners, Quarrymen, Saw mill workers, Trench diggers, Tunnel workers. Workers who come in contact with infected soil, especially prevalent in gold mines of California.
3. Septic Infections.	Skin infections such as boils, carbuncles, blood poisoning, localized lymphangitis or cellulitis.	Animal handlers, Butchers, Canners, Feather workers, Fertilizer makers, Garbage workers, Glue makers, Hair workers, Preparers (tannery), Rag workers, Shavers (felt hats, fur, tannery), Shoddy makers, Silk workers, Soap makers, Tallow refiners, Tannery workers, Veterinarians, Handlers of putrid or decomposing animal products.
G. POOR ILLUMINATION	Nystagmus, eyestrain, deficient vision due to astigmatism or hyperopia, headache, giddiness. Eyestrain contributes to neurasthenia.	Buffers, Burnishers (iron and steel), Caisson workers, Compositors, Embroidery workers, Jewelers, Metal polishers, Miners, Photographers, Steel engravers, Tunnel workers, Watchmakers, any factory worker.
H. REPEATED MOTION, PRESSURE, SHOCK, ETC.	Pain of muscle used, set up by a myositis, bursitis, synovitis, or other local changes of a chronic inflammatory nature; trembling, gradual emaciation and partial paralysis of parts, acroparesthesia.	Artificial flower makers, Barbers, Bicyclists, Blacksmiths, Carpenters, Chauffeurs, Clerks, Cobblers, Compositors, Cotton twisters, Dancers, Diamond cutters, Elevator runners, Enamelers, Engravers,

OCCUPATIONS EXPOSED TO H—Continued.

Gold beaters, Hammermen, Jewelers, Knitters, Lathe turners, Letter sorters, Lithographers, Locksmiths, Machinists, Masons, Microscopists, Milkers, Miners, Musicians, Painters, Paper box makers, Pavers, Pneumatic tool workers, Porters, Pressers, Riveters, Sailors, Sawyers, Scissors sharpeners, Seamstresses, Sewing machine operators, Spinners (textiles), Stone cutters (dry), Stone cutters (wet process), Tailors, Telegraphers, Typists, Washwomen, Watchmakers, Weavers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS*		
1. Acetaldehyde.	Irritation of the mucous membranes of the nose, larynx, bronchi, and eyes; acceleration of the heart's action, profuse night sweats.	Aldehyde pumpmen, Celluloid makers, Dye makers, Explosives workers, Mirror silverers, Varnish makers, Vinegar workers.
2. Acridine.	Irritation and inflammation of skin and mucous membranes, severe burning and itching of the skin, violent sneezing.	Dye makers.
3. Acrolein.	Itching in the throat; irritation of the eyes, exciting lachrymation; conjunctivitis, irritation of the air passages, bronchial catarrh.	Bone renderers, Fat renderers, Galvanizers, Lard makers, Linoleum makers, Linseed oil boilers, Soap makers, Stearic acid makers, Tallow refiners, Tinners, Varnish boilers.
4. Ammonia.	Acute inflammation of the respiratory organs, cough, edema of the lungs, chronic bronchial catarrh, redness of the eyes, increased secretion of saliva, retention of the urine.	Acetylene makers, Ammonium salts makers, Artificial ice makers, Artificial silk makers, Bone-black makers, Bronzers, Coke oven workers, Dye makers, Dyers, Galvanizers, Gas (illuminating) workers, Gas purifiers, Glue workers, Mercerizers, Refrigerating plant workers, Salt extractors (coke oven by-products), Sewer workers, Shellac makers, Shoe finishers, Soda makers, Sugar refiners, Tinners, Varnish makers.
5. Amyl Acetate.	Nervous symptoms, headache, fullness of the head, giddiness, numbness, nausea, disturbances of digestion, palpitation of the heart, inflammation of the respiratory organs, fatty degeneration of the liver.	Alcohol distillery workers, Art glass workers, Artificial silk makers, Battery (dry) makers, Bronzers, Buffers (rubber), Celluloid makers, Cutlery makers, Enamelers, Explosives workers, Furniture polishers, Gilders, Incandescent lamp makers, Jewelers, Lacquer makers, Linoleum makers, Mottlers (leather), Patent leather makers, Polishers, Shellac makers, Shoe factory workers, Shoe finishers, Smokeless powder makers, Toy makers, Wirers (incandescent lamps.)

*For the data presented under this heading, the revised and translated "List of Industrial Poisons" compiled by Sommerfeld and Fischer for the International Association for Labor Legislation has been drawn upon largely. The arrangement is similar. (See U. S. Bureau of Labor, Bulletin No. 100, May, 1912.)

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
6. Amyl Alcohol.	Congestion of the head, oppression of the chest, irritation of the air passages, lowering of the blood pressure, faintness, nausea.	Alcohol distillery workers, Dye makers, Fruit essence makers, Mordanters, Shoe finishers.
7. Aniline and other Amino Compounds of Benzol and Its Homologues.	Pallor of the skin, vertigo, unsteady gait, loss of appetite, increased frequency of respiration, anemia, slowing of the pulse, eczematous eruptions, bloody urine, spasmodic muscular pains, cyanosis.	Aniline makers, Artificial leather makers, Calico printers, Coal-tar workers, Compositors, Compounders (rubber), Dye makers, Explosives workers, Feather workers, Lithographers, Mixers (rubber), Painters, Paint makers, Pencil (colored) makers, Photographic workers, Pressroom workers (rubber), Printers, Reclaimers (rubber), Rubber workers, Tannery workers, Vulcanizers.
8. Antimony and Its Compounds.	Itching eruptions of the skin; inflammation of the mouth, throat, and stomach; albumin in the urine, weakness of the heart, vertigo, faintness, coryza, dyspepsia, intestinal colic, nephritis.	Antimony extractors (refiners), Brass founders, Burnishers (iron and steel), Burnishers (rifle barrels), Calico printers, Color makers, Compositors, Compounders (rubber), Dye makers, Enamel makers, Fliers, Fireworks makers, Glass mixers, Glass dippers (pottery), Glass mixers (pottery), Grinders (metals), Grinders (rubber), Lead smelters, Linotypers, Mixers (rubber), Monotypers, Mordanters, Pressroom workers (rubber), Printers, Rubber workers, Shot makers, Stereotypers, Vulcanizers.
9. Arsenic and Its Compounds.	Headache, melancholia, sleeplessness, gastric disturbances, emaciation, catarrh of the mucous membranes, skin diseases of various forms, falling out of the hair and nails, melanosis, perforations of the nasal septum, bleeding gums, peripheral multiple neuritis, paralysis.	Arsenic roasters, Artificial flower makers, Artificial leather makers, Bookbinders, Brass founders, Bronzers, Calico printers, Candle (colored) makers, Carpet makers, Carrotors (felt hats), Chargers (zinc smelters), Color makers, Colored paper workers, Compounders (rubber), Copper founders, Copper smelters, Curriers (tannery), Cut glass workers, Decorators (pottery), Dye makers, Electroplaters, Enamelers, Feather curers, Feather workers, Felt hat makers, Ferro-silicon workers, Fur handlers, Fur preparers, Galvanizers, Gardeners, Glass mixers, Glass dippers (pottery), Glass mixers (pottery), Gold refiners, Insecticide makers, Japan makers, Jewelers,

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
OCCUPATIONS EXPOSED TO J9—Continued.		
Lead smelters, Linoleum colorers, Lithographers, Mixers (rubber), Mordanters, Paper glazers, Paper hangers, Pencil (colored) makers, Pitch workers, Pottery workers, Pressroom workers (rubber),	Printers, Pyrites burners, Refiners (metals), Rubber tire builders, Rubber washers, Rubber workers, Sealing wax makers, Sheep dip makers, Shot makers, Sprayers (trees), Sulphur burners, Sulphuric acid	workers, Tannery workers, Taxidermists, Tinners, Toy makers, Velvet makers, Wallpaper printers, Wax ornament makers, Wire drawers, Wood preservers, Zinc miners.
10. Arseniureted Hydrogen	General malaise, difficulty of breathing, fainting fits, gastric disturbances, jaundice, bluish discoloration of the mucous membrane, pain in the region of the spleen and kidney, darkened urine, fetor of the mouth resembling garlic.	Acid dippers, Aniline workers, Balloon (toy) fillers, Battery (dry) makers, Bronzers, Carbonizers (shoddy), Dimethyl sulphate makers, Dye makers, Enamelers, Ferro-silicon workers, Fertilizer makers, Galvanizers, Lead burners, Lime burners, Nitroglycerin makers, Picklers, Refiners (metals), Shoddy workers, Submarine (storage battery workers), Sulphuric acid workers, Tinners, Towermen (sulphuric acid), Zinc chloride makers.
11. Benzine.	Headache, vertigo, nausea, cough, irregular respiration, weakness of the heart, drowsiness, cyanosis, twitching of the muscles, psychosis, skin lesions.	Art glass workers, Bronzers, Buffers (rubber), Cast scrubbers (electroplaters), Celluloid makers, Cementers (rubber shoes), Cement mixers (rubber), Compositors, Compounders (rubber), Curriers (tannery), Decorators (pottery), Degreasers (fertilizer, leather), Dippers (rubber), Dry cleaners, Electroplaters, Enamelers, Feather workers, Furniture polishers, Gilders, Glass workers, Japan makers, Lacquer makers, Linoleum makers, Lithographers, Mixers (rubber), Mordanters, Painters, Paint makers, Pressroom workers (rubber), Printers, Putty makers, Rubber glove makers, Rubber tire builders, Rubber washers, Rubber workers, Shellac makers, Shoe finishers, Tannery workers, Type cleaners, Varnish makers, Vulcanizers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS— Cont'd		
12. Benzol.	Headache, vertigo, anemia, muscular tremor, scarlet lips, spots of extravasated blood in the skin, irritant cough, fatty degeneration of liver, kidneys and heart.	Aniline makers, Artificial leather makers, Battery (dry) makers, Benzol stillmen, Bronzers, Carbolic acid makers, Coat scrubbers, Cementers (rubber shoes), Cement mixers (rubber), Coal-tar workers, Coke oven workers, Color makers Compounders (rubber), Decorators (pottery), Degreasers (fertiliser, leather), Dry cleaners, Dryers (rubber), Dye makers, Electroplaters, Explosives workers, Feather workers, Fertiliser makers, Gas (illuminating) workers, Gilders, Glue workers, Lacquer makers, Lithographers, Mixers (rubber), Mordanters, Painters, Paint makers, Photoengravers, Photographic workers, Pressroom workers (rubber), Reclaimers (rubber), Rubber tire builders, Rubber washers, Rubber workers, Shellac makers, Shoe factory workers, Shoe finishers, Smokeless powder makers, Still (coal-tar) cleaners, Treaders (rubber), Varnish makers, Vulcanizers.
13. Brass (Zinc).	Headache, general malaise, throat irritation, cough, nausea, vomiting, constipation, trembling, muscular pains, accelerated respiration, profuse sweating, deposit of green tartar on the teeth, metallic taste in the mouth, anemia, premature old age, respiratory and degenerative diseases.	Bench molders (foundry), Blowers-out (zinc smelting), Brass founders, Brazers, Bronzers, Chargers (zinc smelting), Core makers, Floor molders (foundry), Galvanizers, Junk metal refiners, Laters (zinc smelting), Pourers (brass foundry), Welders, Zinc smelters.
14. Carbon Dioxide.	Anemia, cyanosis, headache, drowsiness, vertigo, tinnitus, and general nervousness.	Alkali salt makers, Blacksmiths, Boiler room workers, Brass founders, Brewers, Brick burners, Caisson workers, Carbon dioxide makers, Charcoal burners, Drying room workers (miscellaneous), Fertiliser makers, Furnace workers, Lime burners, Lime kiln chargers, Miners, Pottery workers, Sewer workers, Silo workers, Soda makers, Starch makers, Sugar refiners, Vinters, White lead makers, Yeast makers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
15. Carbon Disulphide.	Headache, pain in the extremities, trembling, deafness, reduction of the reflexes, acceleration of the heart's action, nausea, digestive trouble, emaciation, disturbance of sense of vision, excitement and violent temper followed by depression, hyperstimulation of sexual instinct, later its abnormal decline, chronic dementia.	Ammonium salts makers, Artificial silk makers, Asphalt testers, Carbon disulphide makers, Celluloid makers, Cementers (rubber shoes), Cement mixers (rubber), Dry cleaners, Dryers (rubber), Enamelers, Glue workers, Insecticide makers, Match factory workers, Oil extractors, Paint makers, Paraffin workers, Putty makers, Reclaimers (rubber), Smokeless powder makers, Sulphur extractors, Tallow refiners, Vulcanizers.
16. Carbon Monoxide.	Headache (usually frontal), dizziness, sense of fullness of the head, fatigue, nausea, general weakness, polycythemia.	Acetylene makers, Bakers, Bisque kiln workers, Blacksmiths, Blockers (felt hats), Boiler room workers, Brass founders, Cable splicers, Calico printers, Carbide makers, Celluloid makers, Charcoal burners, Chargers (zinc smelting), Chimney sweepers, Coal-tar workers, Coke oven workers, Copper smelters, Core makers, Drying room workers (miscellaneous), Enamelers, Felt hat makers, Filament makers (incandescent lamps, Finishers (incandescent lamps), Flangers (felt hats), Flue cleaners, Foundry workers, Furnace workers, Garage workers, Gas (illuminating) workers, Glost kiln workers, Incandescent lamp makers, Kiln tenders, Laundry workers, Lead smelters, Lime burners, Lime kiln chargers, Mercury smelters, Miners, Patent leather makers, Phosgene makers, Pottery workers, Pressers, Refiners (metals), Sealers, (incandescent lamps), Silver melters, Singers (cloth), Soda makers, Stokers, Teasers (glass), Temperers, Tubulators (incandescent lamps), Zinc smelters.
17. Chloride of Lime.	Irritating cough, inflammation of upper air passages, difficulty of breathing, bronchitis, asthma, sometimes hemoptysis, conjunctivitis, lachrymation, hyperhidrosis, burning eruption on the skin.	Bleachers, Chloride of lime makers, Chloroform makers, Disinfectant makers, Dye makers, Laundry workers, Tannery workers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
18. Chlorine.	Pallid countenance, emaciation, decayed teeth, bronchial irritation and asthma, gastric disturbances, irritation of the skin, chlorsene.	Alkali salt makers, Beatermen (paper and pulp), Bleachers, Broom makers, Calico printers, Chloride of lime makers, Chlorine makers Disinfectant makers, Dye makers, Laundry workers, Phosgene makers, Photographic workers, Sulphur chloride makers, Zinc chloride makers.
19. Chlorodinitrobenzol.	See Nitrobenzol.	
20. Chloronitrobenzol.	See Nitrobenzol.	
21. Chromium Compounds.	Pitting, phagedenic ulcers, very difficult to heal and very painful; perforation of the nasal septum at the cartilaginous portion, irritation of the conjunctiva, small areas of inflammation in the lungs, inflammation of the kidneys, chronic gastritis, anemia.	Artificial flower makers, Battery (dry) makers, Bleachers, Calico printers, Candle (colored) makers, Chromium workers, Color makers, Compounders (rubber), Dye makers, Dyers, Enamelers, Glass mixers, Glaze dippers (pottery), Glaze mixers (pottery), Ink makers, Linoleum colorers, Lithographers, Match factory workers, Mixers (rubber), Mordanters, Paper hangers, Pencil (colored) makers, Photoengravers, Photographic workers, Pressroom workers (rubber), Rubber tire builders, Rubber washers, Rubber workers, Tannery workers, Vulcanizers, Wallpaper printers, Wax ornament workers, Wood stainers.
22. Cyanogen Compounds.	Headache, vertigo, unsteadiness of gait, nausea, loss of appetite, disturbance of gastric and intestinal functions, slowing of the pulse, albuminuria.	Acid dippers, Ammonium salts makers, Blacksmiths, Blast furnace workers, Browners (gun barrels), Calico printers, Case hardeners, Celluloid makers, Dye makers, Electroplaters, Fulminate mixers, Gas (illuminating) workers, Gas purifiers, Gold refiners, Photographic workers, Picklers, Silver refiners, Tannery workers, Temperers.
23. Dimethyl Sulphate.	Strongly corrosive effect on the skin and mucous membranes, hoarseness, lachrymation, conjunctivitis, edema, photopholia.	Dimethyl sulphate makers, Dye makers, Perfume makers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
24. Dinitrobenzol.	See Nitrobenzol.	
25. Gasoline.	See Naptha.	
26. Hydrochloric Acid.	Irritation of mucous membranes, conjunctivitis, coryza; pharyngeal, laryngeal, and bronchial catarrh; dental caries.	Acid dippers, Acid finishers (glass), Acid mixers, Acid recoverers, Acid transporters, Alkali salt makers, Ammonium salt makers, Aniline makers, Battery (dry) makers, Calico printers, Camphor makers, Carbolic acid makers, Carbonizers (shoddy), Cartridge dippers, Dye makers, Dyers, Enamel makers, Fertilizer makers, Galvanizers, Glass finishers, Glass mixers, Glue workers, Hydrochloric acid makers, Jewelers, Petroleum refiners, Picklers, Pottery workers, Reclaimers (rubber), Rubber workers, Shoddy workers, Solderers, Sulphur chloride makers, Tinners, Vignetters, Zinc chloride makers.
27. Hydrofluoric Acid.	Intense irritation of the eyelids and conjunctiva, coryza, bronchial catarrh with spasmodic cough; ulceration of the nostrils, gums, and oral mucous membrane; painful ulcers of the cuticle, erosion and formation of vesicles, suppuration under the finger nails.	Antimony fluoride extractors, Art glass workers, Bleachers, Dyers, Etchers, Fertilizer makers, Glass finishers, Silicate extractors.
28. Lead and Its Compounds.	Sallow, pale, yellowish hue of the skin; metallic taste, nausea, anorexia, constipation, lead line, asthenia, lassitude, headaches, arthralgias and neuritis, weakness of grip, tremors of fingers and tongue; lead paralysis, especially of muscles used most; atrophy of optic nerve.	Acid finishers (glass), Amber workers, Art glass workers, Artificial flower makers, Babbitters, Battery (dry) makers, Bench molders (foundry), Blacksmiths, Blooders (tannery), Bookbinders, Bottle cap makers, Brass (founders, Brass polishers, Braziers, Brick burners, Brickmakers,

OCCUPATIONS EXPOSED TO J28—Continued.

Bronzers, Browners (gun-barrels), Brush makers, Buffers (rubber), Burners (enameling), Cable makers, Cable splicers, Calico printers, Canners, Cartridge makers, Celluloid makers, Chargers (zinc smelting), Color makers, Colorers (white) of shoes, Compositors, Concentrating mill workers (lead and zinc), Cut glass workers, Cutlery makers, Decorators (pottery), Diamond polishers, Dye makers, Dyers, Electroplaters, Electrotypers, Embroidery workers, Emery wheel makers, Enamel makers, File cutters, Filers, Floor molders (foundry),

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
OCCUPATIONS EXPOSED TO J28—Continued.		
Galvanizers, Glass finishers, Glass mixers, Glass polishers, Glaze dippers (pottery), Glaze mixers (pottery), Glost kiln workers, Gold refiners, Grinders (metals), Grinders (rubber), Heater boys (riveters), Imitation pearl makers, Incandescent lamp makers, Insecticide makers, Japan makers, Jewelers, Junk metal refiners, Labelers (paint cans), Lacquer makers, Lead burners, Lead foil makers, Lead miners, Lead pipe makers, Lead salts makers, Lead smelters, Linoleum makers, Linotypers, Linseed oil boilers, Lithographers, Litho-transfer workers,	Match factory workers, Mirror silverers, Mixers (rubber), Monotypers, Musical instrument makers, Nitric acid workers, Nitroglycerin makers, Painters, Paint makers, Paint removers, Paper hangers, Patent leather makers, Petroleum refiners, Photograph retouchers, Pipe fitters, Plumbers, Polishers, Pottery workers, Printers, Putty makers, Putty polishers (glass), Reclaimers (rubber), Red lead workers, Refiners (metals), Riveters, Roofers, Rubber workers, Sagger makers, Sandpaperers (enameling and painting auto bodies,	etc.), Screen workers (lead and zinc smelting), Sheet metal workers, Shellac makers, Shot makers, Slip makers (pottery), Slushers (porcelain enameling), Solderers, Stainers (shoes), Steel engravers, Stereotypers, Storage battery makers, Sulphuric acid workers, Table turners (enameling), Tannery workers, Temperers, Tile makers, Tin foil makers, Tinners, Toy makers, Transfer workers (pottery), Tree sprayers, Type founders, Typesetters, Wallpaper printers, Welders, White lead workers, Wood stainers, Zinc smelters.
29. Mercury and Its Compounds.	Ptyalism; swelling, inflammation, and bleeding of the gums; blue line on the gums, rodent ulcers, pallor, mercurial tremor, digestive disturbances, localized white spots in the mucosa surrounded by pale blue or reddened area, general weakness of the hand and digital extensors, foul breath, corrosion of the teeth, furunculosis, elecphrenesis and depression or drowsiness and apathy, loss of energy and initiative.	Artificial flower makers, Battery (dry) makers, Blowers (felt hats), Bronzers, Browners (gun barrels), Brushers (felt hats), Cap loaders, Carroters (felt hats), Cartridge makers, Chlorine makers (electrolytic), Color makers, Coners (felt hats), Dentists, Detonator cleaners, Detonator fillers, Detonator packers, Devil operators (felt hats), Dye makers, Edison storage battery workers, Explosive workers, Felt hat makers, Fireworks makers, Fulminate mixers, Fur handlers, Fur preparers, Gold refiners, Hardeners (felt hats), Incandescent lamp makers, Jewelers, Mercurial vapor lamp makers, Mercury runners, Mercury miners, Mercury salts workers, Mercury smelters, Mercury solder makers, Mercury still cleaners, Mirror silverers, Mixers (felt hats), Paint makers, Photographic workers, Primers (explosives), Refiners (metals), Sizers (felt hats), Solostitchers (Blake machine), Starters (felt hats), Steel engravers, Stiffeners (felt hats), Storage battery makers, Taxidermists, Thermometer makers, Water gilders, Zinc electrode makers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
30. Methyl Alcohol.	Headache, nausea, abdominal cramps, ringing in the ears, muscular prostration, insomnia, delirium, difficulty of breathing, inflammation of the throat and mucous membrane of the air passages, conjunctivitis, serious affections of the retina and optic nerve resulting in blindness, fatty degeneration of the liver.	Aldehyde pumpmen, Art glass workers, Artificial flower makers, Artificial silk makers, Bookbinders, Bronzers, Brush makers, Calico printers, Celluloid makers, Cementers (rubber shoes), Dimethyl sulphate makers, Dry cleaners, Dryers (felt hats), Dye makers, Explosives workers, Feather workers, Felt hat makers, Filament makers (incandescent lamps), Fitters (shoes), Furniture polishers, Gilders, Hardeners (felt hats), Incandescent lamp makers, Ink makers, Japan makers, Lacquer makers, Lasters (shoes), Linoleum makers, Mottlers (leather), Painters, Paint makers, Patent leather makers, Perfume makers, Photoengravers, Photographers, Polishers, Shellac makers, Shoe factory operatives, Shoe finishers, Soap makers, Stiffeners (felt hats), Stitchers (shoes), Type cleaners, Upholsterers, Varnish makers, Vulcanizers, Wood alcohol distillers, Woodworkers.
31. Methyl Bromide.	Vertigo, headache, staring look, pallor of the skin, retarded pulse, constipation, excitability, trembling.	Antipyrin makers, Dye makers.
32. Naphtha.	Headache, vertigo, nausea, vomiting, dyspnea, palpitation, insomnia, hysteria.	Bronzers, Chauffeurs, Degreasers (fertilizer, leather), Dyers, Furniture polishers, Garage workers, Gilders, Metal polish makers, Painters, Petroleum refiners, Polishers, Rubber workers, Shoe finishers, Waterproof cloth makers, Woodworkers.
33. Nitraniline.	See Aniline.	
34. Nitrobenzol and other Nitro Compounds of Benzol and Its Homologues.	Icterical skin which gradually becomes cyanotic, methemoglobin formation, general debility, anemia, presence of hematuphorphyria, albumin, and sometimes free poison in the urine; skin eruptions, visual disturbances, dyspnea, odor of bitter almonds in breath.	Aniline makers, Dye makers, Explosives workers, Perfume makers, Smokeless powder makers, Soap makers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
35. Nitroglycerin.	Severe headache, vertigo, nausea, paralysis of the muscles of the head and eyes as well as of the lower extremities, cyanosis, reddening of the countenance, burning in the throat and stomach, disturbances of digestion, trembling, neuralgia, colic, retarded respiration and heart action, chronic ulcers under nails and on the finger tips, eruptions on the plantar aspect of the feet and interdigital spaces, with extreme dryness and formation of fissures.	Explosives workers, Nitroglycerin workers, Shell fillers.
36. Nitronaphthalene.	See Nitrobenzol.	
37. Nitrous Gases and Nitric Acid.	Irritation of air passages, cough, labored respiration, inflammation of the eyes, corrosion of the teeth, erosion and perforation of nasal septum.	Acid dippers, Acid mixers, Acid recoverers, Acid transporters, Aniline makers, Artificial leather makers, Bleachers, Carroters (felt hats), Cartridge dippers, Celluloid makers, Dimethyl sulphate makers, Dippers (guncotton), Enamelers, Etchers, Explosives workers, Felt hat makers, Fertiliser makers, Fur preparers, Galvanizers, Glue workers, Guncotton dippers, Guncotton wringers, Imitation pearl makers, Incandescent lamp makers, Jewelers, Lithographers, Miners, Mordanters, Nitrators, Nitric acid workers, Nitroglycerin workers, Photoengravers, Picklers, Picric acid makers, Refiners (metals), Soda makers, Steel engravers, Sulphuric acid workers, Towermen (sulphuric acid), Wringers (guncotton).
38. Petroleum.	Inflammation of the skin, acne, suppurating ulcers, papillomas, numbness and irritation of the Schneiderian membrane, headache and sensory disturbances, affections of the respiratory organs.	Browners (gun barrels), Feather workers, Furniture polishers, Lampblack makers, Oil flotation plant workers, Oil well workers, Paraffin workers, Petroleum refiners, Temperers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
39. Phenol.	Erosion of the skin, eczema, irritation of respiratory organs, digestive disturbances, symptoms of degeneration of the blood, emaciation, nephritis, gangrene, icterus.	Bakelite makers, Calico printers, Coal-tar workers, Dye makers, Dyers, Etchers, Gas (illuminating) workers, Gas purifiers, Lampblack makers, Picric acid makers, Rubber workers, Smokeless powder makers, Stillmen (carbolic acid), Surgical dressing makers, Wood preservers.
40. Phenyl Hydrazine.	Vesicular eruptions on the skin with itching and burning, diarrhea, loss of appetite, granular degeneration of the blood corpuscles, formation of methemoglobin, a sense of general malaise.	Antipyrin makers, Dye makers.
41. Phosgene.	Destruction of lung tissue, emphysema and edema, myocardial insufficiency due to the emphysema, pleural thickening and adhesions, chronic bronchitis, mild diffuse bronchiectasis, nocturnal dyspnea, polycythemia.	Dye makers, Phosgene makers
42. Phosphorus.	Inflammation and sclerosis of the bones and of the periosteum, necrosis of the bones of the jaw, swelling and ulceration of the gums and buccal membrane, loosening and falling out of the teeth, suppuration and destruction of jawbone with fistulous channels burrowing through the cheek, meningeal inflammation, brittleness of bones, digestive disturbances, emaciation.	Boneblack makers, Brass founders, Fertiliser makers, Fireworks makers, Insecticide makers, Match factory workers, Phosphate mill workers, Phosphorbronze workers, Phosphorus compounds makers, Phosphorus extractors.
43. Phosphuretted Hydrogen.	Oppressed feeling in the chest, headache, vertigo, tinnitus aurium, general debility, loss of appetite, great thirst.	Acetylene makers, Ferrosilicon workers, Phosphorus extractors, Phosphorus (red) makers.
44. Picric Acid.	Itching, inflammation of the skin, vesicular eruptions, yellow pigmentation of epidermis and conjunctiva, inflammation of buccal mucous membrane, digestive disturbances, vertigo, jaundice, nasal catarrh, nephritis.	Dye makers, Dyers, Explosives workers, Photographers, Picric acid makers, Shell fillers, Smokeless powder makers.

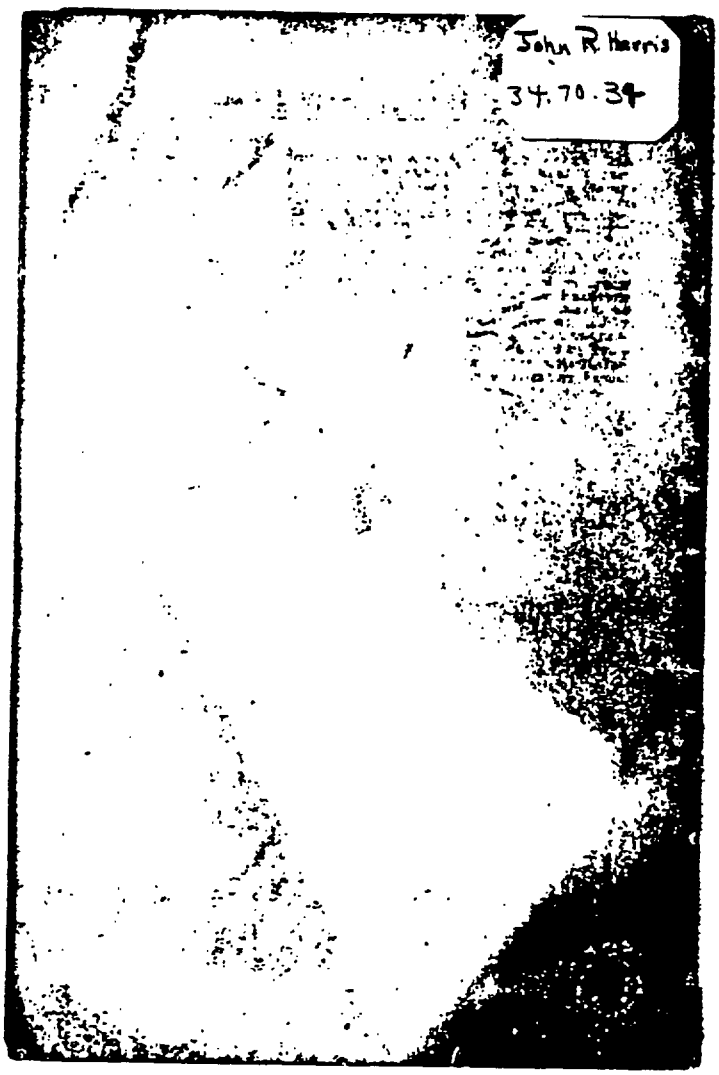
Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
45. Sulphur Chloride.	Symptoms are due to the combined effects of chlorine, hydrochloric acid and sulphur dioxide. Sulphur chloride when in contact with moisture reacts with water to form these products.	Rubber substitute makers, Vulcanisers.
46. Sulphur Dioxide.	Irritation of the mucous membrane of the respiratory organs and eyes, spasmodic cough, bronchial catarrh, digestive disturbances, blood-tinged mucous.	Alkali salt makers, Blast furnace workers, Bleachers, Brass founders, Brick makers, Broom makers, Carbolic acid makers, Chambermen (sulphuric acid), Chargers (zinc smelting), Copper smelters, Dye makers, Fertiliser makers, Flue cleaners, Fruit preservers, Galvanisers, Glue workers, Lead smelters, Mercury smelters, Oil flotation plant workers, Petroleum refiners, Pottery workers, Pyrites burners, Refiners (metals), Rubber workers, Storage battery makers, Sugar refiners, Sulphite cooks, Sulphur burners, Sulphurers (hops and malt), Sulphuric acid workers, Tannery workers, Towermen (sulphuric acid), Zinc smelters.
47. Sulphureted Hydrogen.	Headache, debility, vertigo, nausea, disturbances of digestion, sallow complexion and emaciation, slowing of the pulse, conjunctival catarrh, tendency to the formation of boils.	Alkali salt makers, Artificial silk makers, Blast furnace workers, Bronzers, Cable splicers, Celluloid makers, Dye makers, Fertiliser makers, Flax rettery workers, Gas (illuminating) workers, Gas purifiers, Glue workers, Match factory workers, Miners, Oil flotation plant workers, Petroleum refiners, Pyrites burners, Sewer workers, Soda makers, Sodium sulphide makers, Starch makers, Sugar refiners, Tannery workers.
48. Sulphuric Acid.	Inflammation of respiratory organs, injury to teeth through softening of the dentine, chronic catarrh.	Acid dippers, Acid finishers (glass), Acid mixers, Acid recoverers, Acid transporters, Ammonium salts

OCCUPATIONS EXPOSED TO J48—Continued

makers, Ammonium sulphate makers, Artificial leather makers, Beta still operators (beta naphthol), Burnishers (iron and steel), Calico printers, Carbolic acid makers, Carbonisers (shoddy), Cartridge dippers, Celluloid makers, Chambermen (sulphuric acid), Dimethyl sulphate makers, Dye makers, Explosives workers, Felt hat makers, Fertiliser makers, Galvanisers, Glass finishers, Guncotton dippers, Hydrochloric acid makers, Jewellers, Linoleum makers, Mercerisers, Nitrators, Nitric acid makers, Nitroglycerin makers, Oil flotation plant workers, Patent leather makers, Petroleum refiners, Phosphorus evaporating machine operators, Picklers, Picric acid makers, Rechainers (rubber), Salt extractors (coke oven by-products), Shoddy workers, Storage battery makers, Sulphuric acid workers, Tallow refiners, Tannery workers, Temperers, Towermen (sulphuric acid), Wire drawers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
OCCUPATIONS EXPOSED TO J48 Continued		
49. Tar.	Tar itch, diffuse acne, eczema or psoriasis, loss of appetite, nausea, diarrhea, headache, numbness, vertigo, albuminuria, edema, ischuria, conjunctivitis, bronchitis.	Battery (dry) makers, Briquet makers, Brush makers, Chimney sweepers, Coke oven workers, Cord makers, Flue cleaners, Gas (illuminating) workers, Insulators, Paint makers, Paraffin workers, Pavers, Petroleum refiners, Roofers, Roofing paper workers, Still (coal-tar) cleaners, Tar workers, Wood preservers.
50. Tetrachlorethane (Acetylene Tetrachloride).	Abnormal sense of fatigue, profuse perspiration, general discontent and grouchiness, inability to concentrate, nocturia, slight polyuria, dreaming, headache, vertigo, nervousness, insomnia, loss of appetite, constipation, diarrhea, gas in stomach, general abdominal pain, nausea, eructations of gas, vomiting, loss of weight, jaundice, enlarged liver, bile in the urine, abdominal tenderness, increase of mononuclear cells, appearance of many immature large mononuclears, elevation in the white count, slight anemia, slight increase in number of platelets.	Airplane wing varnishers, Artificial silk makers, Tapers (airplanes).
51. Trinitrotoluol.	Nose and throat irritation, obstinate cough, bluish color of the lips and lobes of the ears, yellowing of the whites of the eyes, expectoration of yellow mucous, discoloration—a mixture of lividity and jaundice, rash on the skin, shortness of breath, anemia, palpitation of the heart, bile-stained urine, rapid weak pulse.	Explosives workers, Shell fillers.

Health Hazards	Symptom, Condition or Disease to Look for	Occupations Which Offer Such Exposure
J. POISONS—Cont'd		
52. Turpentine.	Irritation of the mucous membrane of the eyes, nose, and upper air passages; cough, bronchial inflammation; salivation; giddiness, headache, irritation of the kidneys, odor of violets in urine, severe irritation of the skin, eczema and hardening of the epidermis.	Art glass workers, Cable splicers, Calico printers, Camphor makers, Cementers (rubber shoes), Decorators (pottery), Dry cleaners, Dye makers, Enamelers, Enamel makers, Feather workers, Furniture polishers, Japan makers, Lacquer makers, Linoleum makers, Lithographers, Painters, Paint makers, Patent leather makers, Printers, Rubber workers, Sealing wax makers, Shellac makers, Transfer workers (pottery), Turpentine extractors, Varnish makers.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JAMES J. DAVIS, Secretary
BUREAU OF LABOR STATISTICS
ETHELBERT STEWART, Commissioner

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INDUSTRIAL ACCIDENTS AND HYGIENE SERIES

OCCUPATION HAZARDS AND DIAGNOSTIC SIGNS

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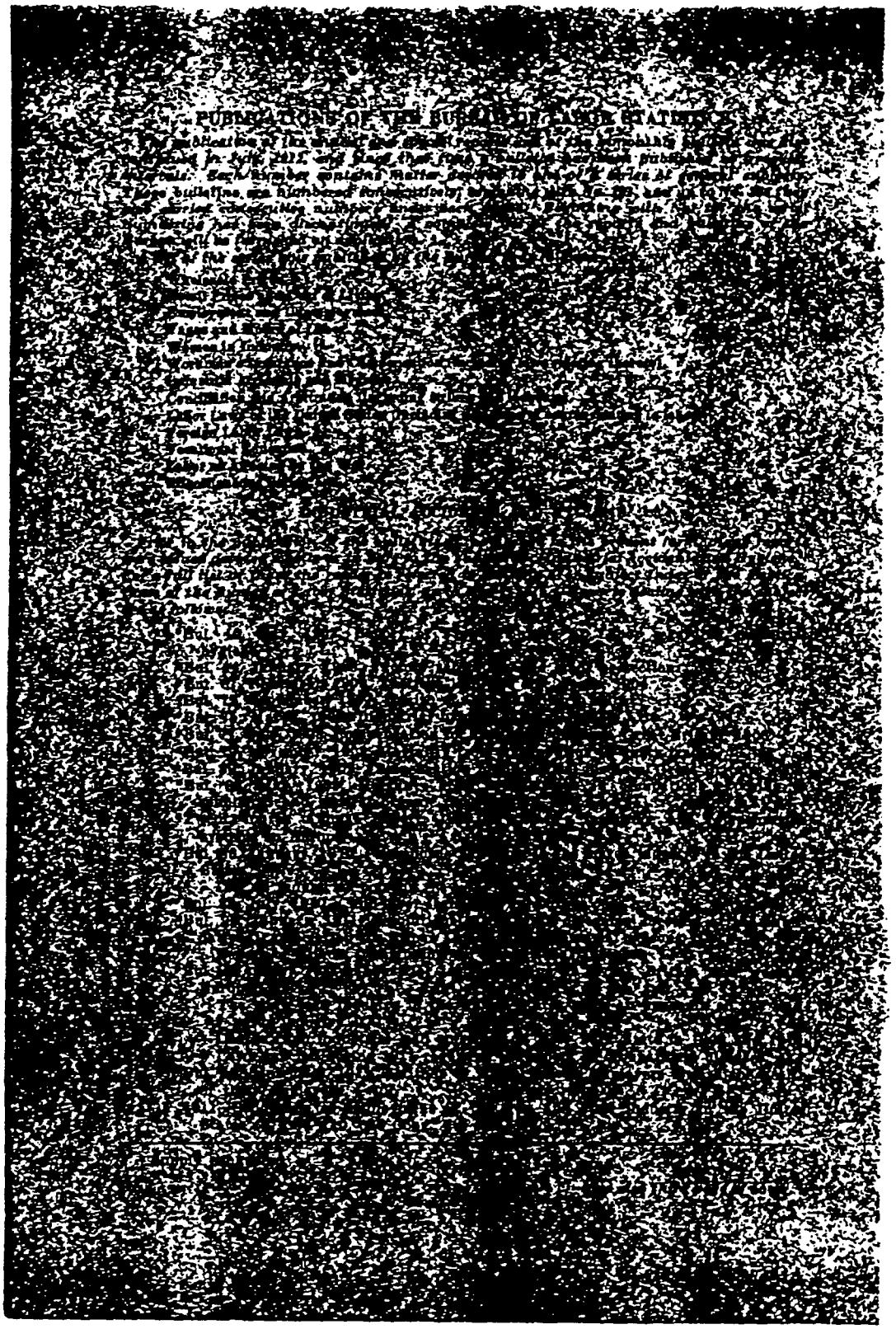

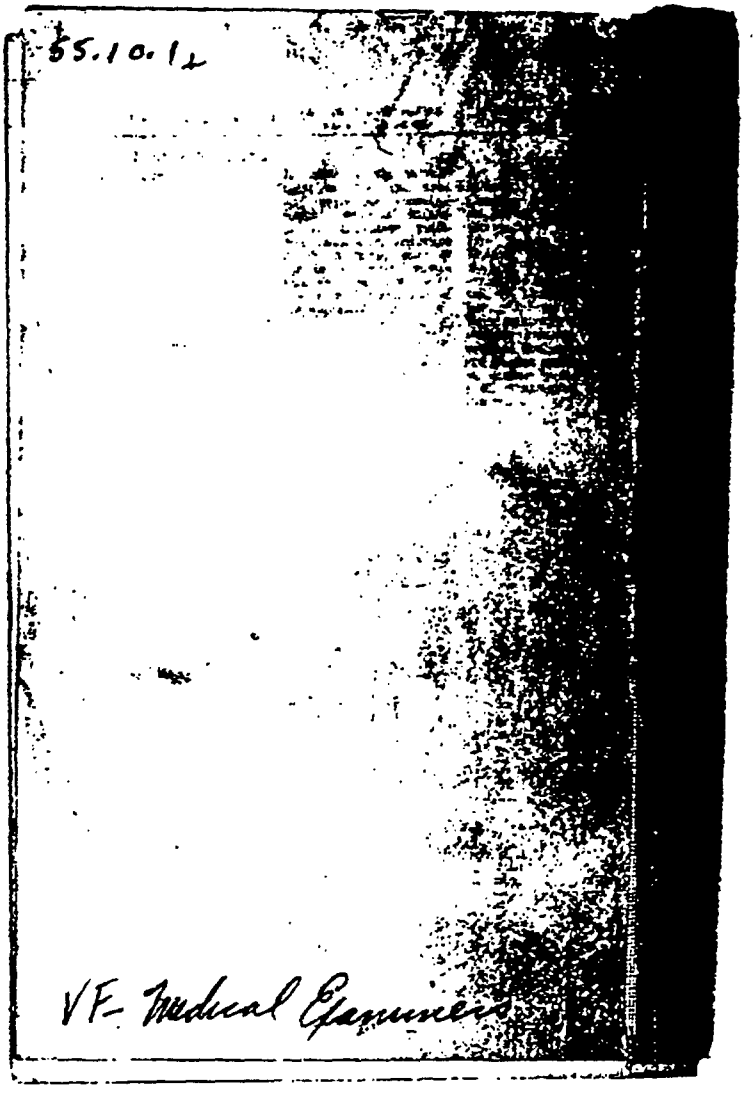
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