

1921

OCCUPATION HAZARDS AND DIAGNOSTIC SIGNS

A GUIDE FOR MEDICAL EXAMINERS

**Regarding Impairments to be Looked for in
Hazardous Occupations**

(Revised and Enlarged)

METROPOLITAN LIFE INSURANCE COMPANY

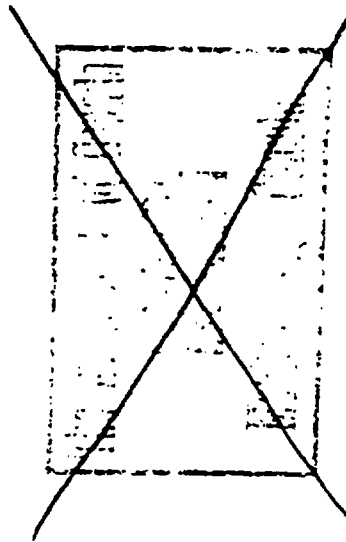
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VF Medical Examiner

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NEW YORK, N. Y.
AND ASSURED COMPANIES
COND. LIFE CO. & LON.
CHAS. L. LINDEN, AVENUE, L. N. Y.

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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

ACKNOWLEDGMENTS.

In presenting the second edition of this pamphlet, the Company desires to acknowledge its indebtedness to the members of the medical profession of the United States and Canada who have so courteously received the first effort and who have so enthusiastically cooperated in extending its scope. All works on Industrial Hygiene have been drawn upon in preparing this revision; but special mention should be made of the work and the personal assistance of Drs. R. P. Albaugh, W. I. Clark, Jr., Henry S. Forbes, Alice Hamilton, Emory R. Hayhurst, Yandell Henderson, Clarence H. Kilker, H. R. M. Landis, A. J. Lanza, Carey P. McCord, D. C. Parmenter, Francis D. Patterson, Marvin D. Shie, H. F. Smyth, E. B. Starr, W. Gilman Thompson, and Messrs. Leonard Greenberg and Frederick G. Lange.

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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 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, 43.
 Acid dippers, C, J 10, 22, 26, 37, 48.
 Acid bladders (glass), J 26, 28, 48.
 Acid makers, see particular acid.
 Acid makers, J 26, 37, 48.
 Acid receivers, J 26, 37, 48.
 Airplane wing manufacturers, see also varnishers, J 50.
 Alcohol distillery workers, J 5, 6.

Aldehyde pumpmen, J 1, 30.
 Alkali salt makers, C, J 14, 15, 26, 46, 47.
 Alkali workers, J 26.
 Ammonium salt makers, A 1, J 4, 15, 22, 26, 48.
 Anaphthalene 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, 2.
 Anesthetics, A 1.
 Antimony extractors (refiners), A 1, J 8.
 Antimony fluoride extractors, J 27.
 Antipyrin makers, J 31, 49.
 Aqueous makers, A 1, J 9.
 Art glass workers, J 5, 11, 27, 28, 30, 52, 29, 30.
 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 saws makers, see fertilizer makers.
 Artificial silk makers, C, J 4, 5, 15, 30, 47, 50.
 Asphalt workers, D 1.
 Asphalt loaders, J 16.
 Auto painters, see also painters, C.
 Babbitts, J 28.
 Balcite makers, J 39.
 Balers, A 2, D 2, J 16.
 Balloons (toy) fillers, J 10.
 Barbers, H.
 Bar mill workers (iron and steel), A 1.
 Batching (artificial manure) workers, D 1.
 Batch makers (glass works), see glass makers.
 Batch makers (rubber works), see compounders (rubber).
 Batens (tannery), C, F 1.
 Batters (dry) makers, D 1, J 5, 10, 12, 21, 25, 28, 38, 48.
 Battery (storage) makers, see storage battery makers.
 Battery (vehicle), D 2.
 Beanoil workers (tannery), C, F 1.
 Beanoilers (paper and pulp), C, J 16.
 Bed rubbers (marble and stone), D 1.
 Bench makers (furniture), D 1, J 12, 28.
 Bessemer stills, A 1, J 12.
 Bessemer converter workers (iron and steel), A 1.
 Brie still operators (beta naphthol), A 1, J 48.
 Brevellers, D 1.
 Bricksellers, H.
 Brick mill workers (iron and steel), A 1.
 Bricks kiln workers, A 1, D 1, J 16.
 Bricksellers, A 1, E, H, J 14, 16, 22, 28.
 Brass furnace workers, A 1, J 22, 48, 49.
 Brassers, A 2, C, J 17, 18, 21, 27, 37, 46.
 Brassery cloth, A 2, C.
 Brassery dryers, A 2, C.
 Bricks (felt hats), C, J 16.
 Bricks (tannery), J 28.

Blasting mill workers (iron and steel), A 1.
 Blowers (felt hat), D 2, J 29.
 Blowers (glass manufacturing), see glass blowers.
 Blowers-out (silk spinning), A 1, J 12.
 Blowers (refiners), A 1.
 Boiler room workers, A 1, J 11, 16.
 Boiler washers, C.
 Bone-black makers, J 4, 42.
 Bone roasters, J 2.
 Bone workers, D 1.
 Boneblenders, J 9, 29, 30.
 Bottle cap makers, J 28.
 Brass workers, A 1, J 5, 9, 13, 11, 16, 28, 42, 48.
 Brass polishers, J 28.
 Brassers, A 1, J 12, 38.
 Brayers, 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.
 Broilers, D 1, J 4, 5, 9, 10, 11, 12, 12, 25, 28, 30, 47.
 Brown makers, D 2, J 19, 46.
 Browners (sea barrels), J 27, 28, 29, 38.
 Brushers (felt hat), D 2, J 28.
 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 28.
 Burnishers (iron and steel), C, J 8, 48.
 Burnishers (rifle barrels), J 8.
 Burners (leadline), D 1.
 Butyl gloves, D 1.
 Butchers, A 2, F 1, 2.
 Button makers, D 1, 2.
 Cable makers, J 28.
 Chain spinners, C, J 16, 28, 47, 52.
 Chain workers, A 2, H, C, J 14.
 Chainmakers (rubber), A 2, D 1.
 Callon printers, A 2, C, J 7, 9, 10, 16, 31, 22, 26, 38, 30, 36, 40, 52.
 Camphor makers, J 26, 52.
 Candy (colored) makers, J 9, 21.
 Candy makers, A 2, C.
 Caspers, A 2, C, F 2, J 28.
 Cap loaders, J 20.
 Caspers (window glass), A 1.
 Carriage makers, A 1, D 1, J 10.
 Carriage brush makers, J 12, 26, 48, 48.
 Carbon dioxide makers, D 1.
 Carbon dioxide makers, J 14.
 Carbonizers (shoddy), D 2, J 16, 26, 48.
 Carburizing workers, A 1, D 1.
 Carbons (textile), D 2.
 Card printers (textile), D 1, 2.
 Carpeters, H.
 Carpet makers, D 2, F 1, J 9.
 Carriers (felt hats), J 9, 20, 37.
 Cartridge cup washers, C.
 Cartridge dippers, J 28, 37, 48.
 Cartridge felt and wool makers, C.

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Enamel makers, A 1, C, H, J 5, 8, 10, 11, 15, 16, 31, 32, 36, 37, 52.
Engravers, see also steel engravers, I 1, 11.
Fishers, J 7, 37, 39.
Explosives workers, see also particular occupations, C, J 1, 3, 7, 12, 29, 30, 34, 35, 37, 44, 48, 61.
Extractor operators (loam), A 2, C.
Farmers, F 1, 2.
Felt makers, see also particular occupations, A 2, C, D 2, J 9, 10, 29, 30, 37, 48.
Fertilizer makers, see also phosphate will employees, C, D 1, F 1, 3, J 10, 12, 14, 26, 37, 37, 42, 46, 47, 48.
Fibre workers, D 2.
Fiduciant makers (incandescent lamps), J 16, 30.
File cutters, D 1, J 25.
Filers, D 1, J 8, 28.
Firm makers, see sulphide makers.
Filter press workers, C.
Fishers (incandescent lamps), J 16.
Finishers (leather), D 2.
Fishers (shoes), see also shoemakers.
Furniture makers, see also explosives, J 8, 29, 42.
Fitters, A 2, C.
Fishers (shoes), J 20.
Fingers (felt glass), A 2, J 16.
Fitters (glass), A 1.
Flax rotary workers, J 47.
Flax spinners, G, D 2.
Flint workers, D 1.
Floor molders (foundry), A 1, D 1, J 12, 28.
Floor workers, D 2.
Flue cleaners, D 1, J 16, 46, 49.
Flue tenders (aluminums), C.
Formers, A 1.
Formers (felt glass), D 2.
Foundry workers, see also particular metal, A 1, D 1, J 16.
Fruit pressers, J 46.
Furnace makers, J 22, 29.
For casters, D 2, F 1.
For chisels, D 2, F 1.
For hand tools, F 1, J 9, 29.
Furniture workers, A 1, B, J 14, 16.
Furniture polishers, A 1, J 25, 30, 38, 52.
For preparers, D 2, F 1, J 9, 29, 37.
For pulpers, D 2, F 1.
Galvanizers, C, J 3, 4, 9, 10, 13, 26, 29, 27, 46, 48.
Garage workers, J 16, 25.

Cableway workers, F J
Carpenters, J 9
(Gas illuminating) see also A J 1, 15,
16, 22, 39, 47, 49.
(Gas perfumery), J 22, 39, 17.
(Salt brines [shale]), A 1.
(Shells), J 8, 11, 12, 25, 30.
(Slime bladders, A D 1, B.
(Slime cutters), C D 1.
(Slime finishers, C D 1, J 26, 27, 28, 48.
(Slime furnace workers, A 1, E.
(Slime miners, D 1, J 8, 9, 31, 26, 28.
(Slime printers), J 28.
(Slime dippers [molders]), C J 8, 9, 21, 24.
(Slime rollers [rollers]), D 1, J 8, 9, 21, 24.
(Slate kiln workers, A 2, J 16, 28.
(Glove makers [leather processors]), see
also tannery workers, C D 2.
(Glove workers, A 2, C D 2, F 3, J 4, 11,
12, 15, 26, 37, 46, 47.
Gold workers, D 1, H.
Grain elevators, D 1, J 9, 22, 28, 29.
Grain elevator workers, D 2.
Gravels, D 1.
(Granite workers, see also cutters.
Grinders [colors], A 1.
(Grinders [metals]), C G, D 1, J 8, 28.
(Grinders [rubber]), D 2, J 8, 28.
(Gunpoint dippers), J 37-48.
(Gunpoint pickers), D 2.
(Gunpoint washers, C 2.
(Gunpoint workers), J 37.
Gypsum workers, D 1.
Hair workers, C D 2, F 4, 3.
Hammocks, H.
Hardeners (felt hats), J 29, 30.
Hardeners (moulds), A 1.
Harrows makers, D 2.
Hat makers (felt), see felt hat makers.
Hoster boys (grinders), J 28.
Iced makers (shoes), D 2.
Ironing workers, D 1.
Horn workers, D 1.
Hot house 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 2.
Insulation reel makers, J 28, 37.
Isacandant lamp makers, see also
particular occupation, J 5, 16, 28,
29, 30, 37.
Isacandant candle hardeners, E.
Jerk makers, J 21, 30.
Jerseyville makers, J 9, 15, 28, 42.
Jeans makers, J 48.
Iron and steel workers (all departments),
see also particular occupations, A 1,
Fronza, A 2.

Wood workers, A 2, C
Wood workers, D 2, F 1
Wood workers, are also particular occupa-
tion, D 2, F 1
Wringers (guscon), J 37.
X-ray workers, E
Yeast makers, J 11.
Zinc chloride makers, J 10, 18, 26.
Zinc electrode makers, J 20.
Zinc miners, are also miners, J 9.
Zinc smelters, A 1, J 12, 16, 28, 46.

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HEALTH HAZARDS

System. Consistency in
Degrading to Long Run

Chlorine in Water
Degrading to Long Run

HEALTH HAZARDS

Systemic Compaction
Degrading to Long Run

Chlorine in Water
Degrading to Long Run

HEALTH HAZARDS

Systemic Compaction
Degrading to Long Run

Chlorinated Polyethylene
(Degrading to Long Run)

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Chlorine in Water
Degrading to Long Run

HEALTH HAZARDS

Systemic Compaction
Degrading to Long Life

Chlorinated Polyethylene
(Degrading to Long Life)

HEALTH HAZARDS

Systemic Compaction
Degrading to Long Run

Chlorine in Water
Degrading to Long Run

HEALTH HAZARDS

Systemic Compaction
Degrading to Long Life

Chlorine Compounds
Degrading to Long Life

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Chlorine in Water
Degrading to Long Run

HEALTH HAZARDS

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Degrading to Long Run

Chlorine in Water
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F. INFECTIONS—

Cont'd.

2. Hookworms (Ankylostomiasis)

Anemia, pallor of the face even when the blood count is not very low; a dull, heavy, listless expression; faintness, speech, and pain; increasing muscular weakness, occurrence of petechiae in stool. Victims often complain of gastro-intestinal pains and cramps. In congested areas there are edemas, scabies, progressive reactions, prethoracic abscesses and increasing stupor.

3. Septic Infections.

Skin infections such as boils, carbuncles, blood poisoning, localized lymphangitis or cellulitis.

Animal handlers, Butchers, Cannery, Feather workers, Fertilizer makers, Garbage workers, Glass makers, Hair workers, Propagators (nursery), Rag workers, Shavers (left side for, laundry), Shoddy makers, Silk workers, Soap makers, Tallow makers, Tannery workers, Veterinarians, Handlers of poultry or decomposing animal products.

G. POOR ILLUMINATION

Nystagmus, eyestrain, distant vision due to astigmatism or hyperopia, headache, dizziness. Eyestrain contributes to neuroethesia.

Butchers, Benders (iron and steel), Chiseler workers, Compositors, Embroidery workers, Jewelers, Metal polishers, Miners, Photographers, Steel engravers, Tinsmiths, Watchmakers, any factory worker.

H. REPEATED MOTION, PRESSURE, SHOCK, ETC.

Pain of muscle used, set up by a myositis, bruising, sprain, or other local changes of a chronic inflammatory nature; trembling, gradual emaciation and partial paralysis of parts, atrophy of muscles.

Artificial flower makers, Barbers, Bicyclists, Blacksmiths, Carpenters, Chauffeurs, Clocks, Cobblers, Compositors, Cotton twisters, Diamond cutters, Elevator runners, Enamellers, Engravers.

OCCUPATIONS EXPOSED TO H—Continued.

Gold beaters, Hammermen, Jewelers, Knitters, Lathe turners, Letter sorters, Lithographers, Locksmiths, Machinists, Masons, Microscopists, Millers, Miners, Musicians, Painters, Paper box makers, Pavers, Pressmen, Tool workers, Pottery, Pressmen, Riveters, Sailors, Sawyers, Seamstresses, Sewing machine operators, Spinners (textiles), Stone cutters (dry), Stone cutters (wet process), Tailors, Triptographers, Typists, Watchmen, Watchmakers, Weavers.

J. POISONS*

1. Acetabdehyde.

Irritation of the mucous membranes of the nose, throat, larynx, and eyes; excoriation of the heart's action, produce night sweats.

Aldehyde purifiers, Cellulose makers, Dye makers, Explosives workers, Mineral solvents, 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 causing lachrymation; conjunctivitis, irritation of the air passages, bronchial catarrh.

Bone removers, Fat removers, Galvanizers, Lead makers, Linoleum makers, Linseed oil makers, Soap makers, Sulfuric acid makers, Tallow refiners, Tanners, Varnish makers.

4. Ammonia.

Acute inflammation of the respiratory organs, cough, redness of the face, chronic bronchial catarrh, redness of the eyes, increased retention of saliva, retention of the urine.

Acetylene makers, Ammonium salts makers, Artificial silk makers, Artificial nitrate makers, Bone-black makers, Broomers, Cuke oven workers, Dye makers, Dyers, Galvanizers, Gas (illuminating) workers, Gas purifiers, Glass workers, Mercantiles, Refrigerating plant workers, Salt extractors (sake area by-product), Sewer workers, Wheel makers, Wood finishers, Soda makers, Sugar refiners, Tinsmiths, Varnish makers.

5. Amyl Acetate.

Nervous symptoms, headache, fullness of the head, giddiness, numbness, nausea, disturbance 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, Broomers, Buffers (rubber), Celluloid makers, Cellulose workers, Explosives workers, Furniture polishers, Glycerine, Isocandecene, Lamp makers, Lacquer makers, Linoleum makers, Mothers (leather), Patent leather makers, Polishers, Shellac makers, Shoe factory workers, Shoe finishers, Smokeless powder makers, Toy makers, Wires (insulated lamp).

*For the data presented under this heading, the revised and translated "List of Industrial Poisons" compiled by the International Association for Labor Legislation, was published in 1912. The arrangement is similar. (See U. S. Bureau of Labor, Bulletin No. 109, May, 1912.)

J. POISONS—Cont'd

6. Amyl Alcohol.
Irritation of the head, nose, throat, irritation of the air passages, lowering of the blood pressure, faintness, nausea.

7. Auline and other Amino Compounds of Benad and Its Homologues.
Pallor of the skin, vertigo, untended gait, loss of appetite, increased frequency of respiration, anemia, slowing of the pulse, occasional eruptions, bloody urine, spasmodic muscular pain, cyanosis.

8. Antimony and Its Compounds.

Itching eruptions of the skin; inflammation of the mouth, throat, and stomach; albumin in the urine, vertigo, faintness, epigastric pain, intestinal colic, nephritis.

9. Arsenic and Its Compounds.

Headache, anorexia, nausea, vomiting, gastroenteritis, diarrhea, emesis, irritation of the mucous membranes, skin diseases of various forms, falling out of the hair and nails, polyneuritis, perforations of the nasal septum, bleeding gums, peripheral multiple neuritis, paralysis.

OCCUPATIONS EXPOSED TO 9—Continued.

ber), Copper founders, Feather curers, Glass makers, Gunpowder makers, Hat makers, Lead workers, Lithographers, Millers, Paint makers, Rubber workers, Shot makers, Soap makers, Tannery workers, Type setters, Varnish makers, Vulcanizers.

J. POISONS—Cont'd

OCCUPATIONS EXPOSED TO 9—Continued.

Lead smelters, Linoleum makers, Lithographers, Millers, Paint makers, Rubber workers, Shot makers, Soap makers, Tannery workers, Type setters, Varnish makers, Vulcanizers.

10. Asenitiated Hydrogen

(General malaise, difficulty of breathing, fainting fits, gastric disturbances, headache, bluish discoloration of the mucous membrane, pain in the region of the epigastrium, fever, darkened urine, color of the mouth resembling garlic.

11. Benzine.

Headache, vertigo, nausea, cough, irregular respiration, weakness of the heart, drowsiness, cyanosis, twitching of the muscles, psychomotor, skin lesions.

Art glass workers, Bronzers, Buffers (rubber), Casters (rubber), Celluloid makers, Cement makers (rubber shoes), Compositors (rubber), Decorators (pottery), Degreasers (rubber), Dry cleaners, Electroplaters, Enamellers, Leather workers, Perfumers, Polishers, Glaziers, Urethra workers, Japan makers, Lacquer makers, Linoleum makers, Lithographers, Millers (rubber), Mordanters, Paint makers, Pottery workers, Rubber workers, Rubber floor makers, Rubber tire builders, Rubber washers, Rubber workers, Shoe makers, Shoe finishers, Tannery workers, Type setters, Varnish makers, Vulcanizers.

[illegible]

HEALTH HAZARDS	Symptoms, Conditions, or Tinkering to Deal With	Occupational Hazards
J. POISONS—Cont'd		
30. Methyl Alcohol.	Headache, nausea, abdom- inal cramping, rinsing in the eyes, muscular prostration, loss of vision, delirium, diffi- culty of breathing, inad- mission of the throat and anxious excitement of the air passages, conjunctivitis, erectile and optic nerve re- sulting in blindness, fatty degeneration of the liver.	Aldehyde, pumpers, At- close workers, Artists in flower makers, Artificial sil- ners, Bookbinders, Brewers, Brush makers, Cello violins, Cellulose makers, (Synthetic rubber shoes), (Synthetic saddle saddles), Dry cleaners, Dry- ers (oil base), Dye makers, Furniture workers, Fel- der workers, Fell hat mak- ers, Filament makers, Flammable liquids, (Fol- lowers), Hairdressing (fel- lows), Handicrafts (fel- lows), Insulated heat makers, Lacquer makers, Lathers (shoes), Linoleum makers, Millers (leather binders), Paint makers, Patent leather makers, Pe- troleum makers, Photo- graphers, Photographers, Polishers, Shellac makers, Shoe factory operatives, Shoe finishers, Soap mak- ers, Shifters (oil base), Stitchers (shoes), Typo- cleaners, Upholsters, Var- nish makers, Varnishers, Wood alcohol distiller, Woodworkers.
31. Methyl Benzide.	Vertigo, headache, staring look, pallor of the skin, re- tarded pulse, constipation constituting, trembling.	Antipyrit makers, Dy- makers.
32. Naphtha.	Headache, vertigo, nausea vomiting, dyspnea, polypia tion, incontinence, hysteria.	Bromers, Chauffeurs, Di- crackers (fertilizer, leather Dyers, Furniture polishers, Garage workers, Gilders, Metal polish makers, Paint- ers, Petroleum refin- ers, Rubber workers, Shoe finishers, Waterpro- of cloth makers, Woodworkers.
33. Nitrobenzene.	See Aniline.	
34. Nitrobenzol and other Nitro Compounds of Benzol and Its Homo- logues.	Federal skin which ery- thema, bronchitis, cyanosis, anemia, delirium, convul- sions, general debility, anuria, premature of hematuria, pyuria, albumin, and oed- ema (free poison in the urine); skin eruptions, visual disturbances, drop- sies, odor of bitter almonds in breath.	Aniline makers, Dye makers, Explosives workers, Fer- tilizer makers, Bookbind- ers, powder makers, powder makers.

HEALTH HAZARD	STARTING CONCENTRATION OR THREAT TO LIFE DOSE	OCCUPATIONS WHERE OTHER SUBS EXIST
J. POISONS Cont'd		
39. Hved.		
40. Phenyl Hydrazine.	Redness of the skin, vesiculae, irritation of respiratory organs, digestive disturbances, symptoms of anaemia, depression of the blood, remission nephritis, gangrene, icterus.	Induligo makers, Calson printers, Vulcanizer makers, Dye makers, Dyers, Placers, Gas (gas purifiers) workers, Gas (illumination) workers, Gum pacifiers, Lanthanum makers, Picric acid makers, Rubber workers, Smoked powder makers, Sulfonates (sulfonate acid), Surgical dressing makers, Wood preservers.
41. Phengene.	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.	Aniliprin makers, Dye makers.
42. Phosphorus.	Destruction of lung tissue, emphysema and edema, myocardial insufficiency due to the capillaries, pleural thickening and adhesion, chronic bronchitis, mild diffuse bronchiectasis, interstitial dyspnea, polypleuritis.	Dye makers, Phosphorus makers.
43. Phosphorus.	Inflammation and necrosis of the bones and of the periosteum, necrosis of the jaw, swelling of the bones and ulceration of the gums and buccal membrane, bleeding and falling out of the teeth, suppuration and destruction of jawbone with fetidulous abscesses burrowing through the cheek, osteomyelitis, osteitis, osteoporosis, inflammation, brittleness of bones, degenerative disturbances, emaciation.	Barbeduck makers, Bone powder, Fertilizer makers, Fireworks makers, Incendiarists makers, Match factory makers, Phosphate mill workers, Phosphoric bronze workers, Phosphorus compounds makers, Phosphorus extractors.
44. Picric Acid.	Oppressed feeling in the chest, headache, vertigo, tremulousness, general debility, loss of appetite, great thirst.	Acetylene makers, Ferro-alloys workers, Phosphorus extractors, Phosphorus (red) makers.
45. Pyro Acid.	Itching, inflammation of the skin, vesicular eruptions, yellow precipitation of epidermis and conjunctiva, inflammation of buccal mucosa membrane, degenerative disturbances, vesicular eruptions on larynx, oedema.	Dye makers, Dyers, Explosives workers, Photographers, Picric acid makers, Shell fillers, Smoked powder makers.

HEALTH HAZARD	Symptom, Condition or Injuries to Look For	OCCUPATIONS WHICH OFFER SOME 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 orotomaxillary bearing in the throat and stomach, disturbances of digestion, trembling, weakness, cold, retarded irradation and heart action, chills, edema under nails and on the finger tips, eruptions on the pharyngeal aspect of the feet and interdigital spaces, with extreme dryness and formation of fissures.	Ephraim workers, Nitro-silicic workers, Shell fillers.
36. Nitrosophthalates.	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 miners, Acid removers, Acid treat-ports, Amine makers, Artificial leather makers, Bleachers, Carriers (felt hats), Castings dippers, Colloid makers, Dye-stuff sulphate makers, Dyers (quintessence), Enamellers, Explosive workers, Felt hat makers, Ferdiser makers, Fur preparers, Galvanizers, Glass workers, Gunpowder dippers, Gun-powder wringers, Imposition makers, Insulation makers, Jewellers, Lithographers, Miners, Mordants, Nitrators, Nitric acid workers, Nitro-sulfuric workers, Photo-engravers, Platers, Potassium makers, Radon (ac-tual), Soda makers, Steel-makers, Sulphuric acid workers, Toner-men (sul-phuric acid), Wringers (gun-powder).
38. Potassium.	Inflammation of the skin, sore, suppurating ulcers, pyoderma, numbness and irritation of the Schneiderian membrane, headache and sensory disturbances, affection of the respiratory organs.	Browners (gas barrels), Feather workers, Furniture polishers, Lampblack makers, Oil distillation plant workers, Oil seed workers, Paraffin workers, Petroleum refiners, Temperers.

HEALTH HAZARDS

SYMPTOM, CONDITION OR DISEASE TO LOOK FOR

OCCUPATIONS WHERE OTHERS ARE EXPOSED

J. POISONS—Cont'd

52. Turpentine.

Irritation of the mucous membrane of the eyes, nose, and upper air passages; cough, bronchitis, inflammation; salivation; edema of the lips, face, and throat; irritation of the kidneys, odor of uric acid in urine, severe irritation of the skin, exsiccation and hardening of the epidermis.

Art glass workers, Cable splicers, Calico printers, Caulker makers, Cement-ers (rubber shoes), Decorators (soldier), Dry cleaners, Dye makers, Enamellers, Enamel makers, Feather workers, Furniture polish-ers, Japan makers, Lacquer makers, Linoleum makers, Lithographers, Painters, Paint-makers, Patent-leather makers, Printers, Rubber workers, Sealing wax mak-ers, Shale makers, Tins-fer makers (pottery), Turpentine extractors, Varnish makers.

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OCCUPATION HAZARDS AND DIAGNOSTIC SIGNS

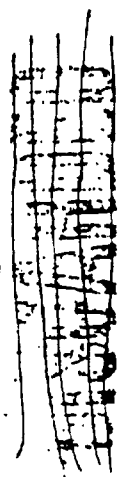
**A GUIDE FOR MEDICAL EXAMINERS
Regarding Impairments to be Looked for in
Hazardous Occupations**

(Revised and Enlarged)

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