

INDEX

A

- ACCESSORY food-factors, 139
 Acetate ~~167~~, 167
 Acetone, 182
 Acetyl choline, 157
 Acids, 24
 Acids, ionisation of, 77
 Acidity, pH scale of, 79
 Acidosis, 81
 Activated sludge, 123
Adeps lanae, 162
 Adrenaline, 155
 Adult human body, 19
 Aero-dopes, 176
 Age of earth, 50
 Air, carbon dioxide in, 93
 Aldehydes, 14
 Alimentary canal, 103
 Alkalinity, 80
 Aluminium, 19, 216
 Alveoli, 94
 American petroleum, 12
 Amines, 15, 24
 Amino-acids, 16
 Ammonia, 24, 196
 Ammonium chloride, 188
 Ammonium nitrate, 188
 Ammonium sulphate, 187
 Anaerobic fermentation, 231
 Anæsthetics, 158 *et seq.*
 Anhydrite, 58
 Animal starch, 110
 "Anti-knocks," 238
 Apnœa, 99
 Arginine, 120
 Argon, 50
 Arsenic poisoning, 26 *et seq.*
 Asbestos, 47
 Aspartic acid, 120
 Atmosphere, composition of, 57, 60
 Atoms, 5
 Aurora borealis, 61
 Avogadro number, 6

- BACTERIA, soil, 63
Bac. colis communis, 107
 Bakelite, 228

- Bagasse, 112
 Bases, 24
 Bases, ionisation of, 77
 Basic slag, 189
 Bating, leather, 165
 Bauxite, 217
 Benzene, 12, 235
 Beri-beri, 144
 "Berginisation" of coal, 231
 Beryl, 32
 Beryllium, 218
 Beta-eucaine, 159
 Beverages, aeration of, 49
 Biochemistry, 5
 Bile, pigment of, 94
 water in, 69, 121
 Blast furnace, 201
 Blood, 69, 89, *et. seq.*
 circulation, 95
 clotting of, 91
 dried, 188
 Body, animal, 19
 Bomb calorimeter, 130
 Bones, 18, 31, 70
 formation of, 148
 Bone meal, 190
 Bordeaux mixture, 193
 Bottles, glass, 39
 Brain, water in, 69
 Breathing, oxygen, 101
 forced, 80
 Bricks, 43
 Brownian movement, 70
 Burgundy mixture, 193
- CADMIUM plating, 214
 Calcification, 140, 149
 Calcium cyanamide, 188
 flame, 52
 nitrate, 186
 phosphate, 31, 69
 Calorie, 128
 Calorific values, foodstuffs, 130
 Cancer, stomach, 117
 Candles, 235

"Flints," cigarette lighters, 212
 Flour improvers, 31
 Foam, fire, 48
 Foods, calorific values, 130
 composition of, 102, 134
 digestion of, 102
 requirements of, 133
 synthetic, 84
 Formaldehyde, 63, 228
 Fructose, 109
 Fuels, combustion of, 224
 pulverised, 225
 Fulminic acid, 66
 Furnaces, fuelling of, 225

GALACTOSE, 109
 Gall-bladder, 118
 Galvanised iron, 213
 Gastric juice, 69
 Gelatine, 70
 Glass, 58 *et seq.*
 Glucose, 108, 121
 Glutamic acid, 120
 Glycogen, 110
 Goitre, exophthalmic, 156
 Grave's disease, 156
 Growth, plants, 185
 Guanos, 192
 Gypsum, 58

HÆMATITE, 200
 Hair follicle, 162
 Halibut, 143
 Hardness of water, 30
 Heart, activity of, 157
 Helium, 50, 221
 Hemlock-bark, 166
 Hemp preparations, 158
 Hexoses, 108
 High speed steels, 210
 Histamine, 157
 Histidine, 120
 Homogenised milk, 88
 Hormones, 118, 153 *et seq.*
 Human body, cells, 69
 composition of, 68
 water in, 68
 Hydrocarbons, 13
 Hydrogenation, 140
 Hydrogen-ion concentration, 78
 Hypernœa, 99
 Hypervitaminosis, 140
 Hypodermic syringe, 159

INCANDESCENT gas mantles, 212
 Inorganic chemistry, 4
 Insecticides, 26, 192
 Insulators, 176
 Insulin, 121, 154
 Internal combustion engine, 239
 Intestines, 102, 123
 Invar, 209
 Invertase, 120
 Iodine, body requirement of, 137
 Iodised salt, 156
 Ionamine dyes, 175
 Ionisation, 75
 Iron, cast, 200
 in blood, 94
 ores, 189
 pig, 189, 200
 wrought, 201
 Irradiation, U.V. rays, 141
 Islets of Langerhaus, 121

KAINIT, 192
 Kelp, 185
 Keratin, 161
 Kerosene, 235
 Ketones, 15
 Ketosis, 15
 Kidneys, 69
 "Knocking," 240

LACTAGLOBULIN, 85
 Lactalbumin, 85
 Lactase, 120
 Lactic acid, milk, 86
 Lacquers, nitro-cellulose, 176
 Lampblack, 221
 Lanoline, 162
 Lead arsenate, 193
 Lead tetraethyl, 241
 Leather, 164
 Lecithin, 115
 Lemon-juice, 145
 Leucine, 120
 Leunasalt-peter, 188
 Life, essential substances, 65
 origin of, 64
 Lime-juice, 144
 Linen, 167
 Linen, starched, 111
 Liver, action of, 121
 Liver-oils, fish, 143
 Lodestone, 200
 Lymph, water in, 69, 89
 Lysine, 120

QUARTZ, 33
Quassia, 193

R 101, 222
Radioactive substances, 50
Reaction, 74
Rectum, 102
Regeneration, 49
Respiration, hydrogen-ions and, 80
Rice-polishings, 144
Rickets, 141
Rigor mortis, 95
Rocks, weathering of, 93
Rock phosphate, 189
Rye, 147
Rustless steels, 206

SALIVA, 106
Salmon, 143
Salt, 24
beds, 58
human need of, 58
importance of, 58
Scouring, wool, 162
Scudding, 165
Scurvy, 141
Sea-weed, 185
Secretin, 118
Self-raising flour, 31
Sericin, 163
Serum, 144
sewage, disposal of, 123
gas from, 232
Sewage sludge, use of, 188
Shale oil, 234
Silica, 20
Silk, 163
Sill-worm, 163
Sizing paper, 178
Sludge, aeration of, 123
Soap, 114
Sodium nitrate, 186
Sodium silicate, 162
Soil, 20, 184
Soup, osmotic pressure of, 137
Sparking plugs, testing, 50
Spectroscope, 51
Spelter, 213
Sperm oil, 234
Spiegel-eisen, 203
Spinach, 144
Starch, 107

Stainless steels, 207
"Staybrite" steel, 209
Steel, cutting, 50
special, 202 *et seq.*
tungsten, 197
Stearin, 113
Sterility, 153
Stomach, 102, 107, 116
Stovaine, 159
Submarine cables, 202
Substrate, 104
Sugars, 108
Sugar manufacture, 111
Suint, 162
Sun, temperature of, 53
Superphosphate of lime, 185, 189
Swedes, 185
Sylvinite, 192
Synthetic resins, 232

TANNING, leather, 166
Tantalum, 211
Temperature, body, 127
muscles, 125
Tetanus, 107
Therm, 227
Thermit process, 21
Thorium, 211
Thyroid gland, 156
Thyroxine, 156
Tins, 213
Tissues, oxidation of, 101
Tobacco, misuse of, 91
Tomato, 145
Toilet soap, superfatting, 163
Trypsin, 119
Trypsinogen, 119
Tryptophane, 120
Tuberculosis, 107
Tungsten, 199, 211
Tyndall beam, 82
Tyrosine, 120
Typhoid fever, 107

ULTRA-MICROSCOPE, 83
Ultra-violet rays, glass, 41
therapeutic applications, 151
Unhairing leather, 165
Universe, 51
Uremia, 81
Urea, 125
Urine, 94