

INDEX.

- ABSORPTIVE** power of reclaimed rubber, 226.
Accumulators, hydraulic, 75.
Accumulator cases, 216.
Acid-resisting rubber, 104.
African rubber, 14, 15, 17, 18, 19.
Air, compressed, 129, 139.
Air-cushions, 155.
Air, hot, 85.
Air-markings, 136, 152.
Albuminoids of rubber, 17.
Alkali nitrites, 137.
 solution, caustic, 225.
Aluminium bronzes, 90.
Ambroin, 221.
American rubber, 6-19.
Ammonium carbonate, 136.
 nitrite, 137.
Analysis of rubber, 17.
Analytical values, 19.
Arrangement of a rubber factory, 1.
Asbestos fibre, 191, 223.
 sheet, 192.
Asiatic rubber, 16.
Asphaltum in mixings, 116.
Asphalt varnish, 217.
BALLS, 136.
 mixings for, 137.
 painting, 139.
 vulcanising press for, 138.
Ball valve, 135.
Band saws, 144.
Bands, elastic, 158.
Beaded edge of tyre, 152.
Beaming machine, 130.
Behaviour of rubbers on mixing rolls, 41.
Belting, 145.
 calenders, 146.
 vulcanisation of, 14.
Belt-folding machine, 145.
Bent-lever press, 218.
Benzine, 162, 164.
Benzole, 82, 162.
Besk, 19, 115.
Bicycle tyres, 150.
Billiard-strip, 135.
Blisters in hose, 131.
Blocks for "cut-sheet," 174.
Blooming, 63.
Boilers, 3.
Bolivian Para, 7.
Bottle-washer waste, 226.
Braided hose, 125.
Braiding machine, 126.
Brake rubbers, 150, 154.
Brass mandrels, 129.
Bronze-colour printing, 89.
CABLE-coating machine, 188.
Cable, insulated, 188.
 insulation, 190.
Cables, electric, 188.
Cab-tyres, 135.
Calabashes, 8.
Calendered sheet, 197.
Calendering sheet-rubber, 47, 54, 155, 208.
Calenders, 46, 197.
Calotropis gigantea, 16.
Cameta, 10.
Canvas hose, 129.
 lining, 130, 141.
Caps of galoshes, 182.
Carbon bisulphide, 82.
 black, 178.
 dioxide, 137.
 tetrachloride, 82.
Carding machine, 223.
Castilleja elastica, 13.
Casting tin, 213.
Caucho, 12.
Caustic soda solution, 227.
Ceara rubber, 11.
Centrifugal machine, 34, 38, 206.
 covering with ebonite, 220.
Celluloid spreading-knife, 126.
Ceylon Para, 11, 17.
Chalking apparatus, 121, 140.
 machine, 170.
Chemical properties of rubber, 19.
 valuation of rubber, 17.
Chloride of sulphur, 59.
 action of, 80.
 of zinc, 229.
Chlorine content of reclaimed rubber, 225.
Coal-tar addition, 116.
 colours, 88.

- Coating cable**, 188.
 machine, 188.
Cold vulcanisation, 80.
Collection of "Para," 7.
Collodion solution, 218.
Coloration of rubber, 20, 108.
Coloured effects on waterproof, 88.
Combs, manufacture of, 218.
Compressor, 175.
Condenser, 175.
Cone drive, 175.
Contraction of rubber, 101, 145, 152.
Control, analytical, 104.
Conveying bands, 184.
Cooling capacity, 175.
Copal, 222.
Copper, action on rubber, 90.
Cord, 139, 145.
Couplings, 31.
Cryptostegia grandiflora, 16.
Cut-sheet, 173.
 manufacture, 173.
 thicknesses of, 177.
 waste, 225.
Cutting-out machine for galoshes, 180.
 "Cyclone," 206.
DEAD Borneo, 19, 115.
Deckle straps, 135.
Decomposition products, 82, 226.
Depolymerisation, 20, 39, 41.
Designs in relief on waterproof, 168.
Dew-formation on cold-cured goods, 82, 90.
Diathermancy (of ebonite), 202.
Dies of tube machine, 139.
Dipping bench, 98.
Discharging electricity from proofed sheet, 93.
Distillation (destructive) of rubber, 21.
Dolls, rubber, 137.
Doubled waterproof fabrics, 84.
Doubling calenders, 84, 87.
 rollers, 55.
Draw-plate, 76.
Drum-moulds for tyres, 152.
Drying plant, 36.
Drying washed rubber, 84.
"Dryness" of mixings, 116.
Dyestuffs, 88.
EBOLITE, 221.
Ebonite, covering articles with, 220.
 dust, air-separation of, 206.
 centrifugalising, 206.
 expansion of, 202.
 imitation, 221.
 manufacture, 201.
 mixings, 206.
 moulded goods, 217.
 rods and tubes, 214.
 sheet, 208.
 waste, 208.
Elasticity, 196.
Embossing calenders, 171.
Enamelling, 156.
Engine-room, 3.
English hose, 125.
Engraved roller, 171.
Eraser rubber, 195.
Estrada, 8.
Evaporation pipes, 175.
FELTED asbestos, 191.
Feuille anglaise, 177.
Ficus elastica, 16.
 plantations, 16.
Figure-eight cut, 135.
Filters, 104.
Filter flannel, 206.
 press, 156.
Flower-tubing, 141.
Foglia segata, 177.
Forcing apparatus for removing hose from mandrels, 129.
Freezing-chamber, 174.
 plant, 174.
Frictioning, 57.
Frictions, 101.
Funtumia, 14.
GALOSHES, 177.
Gas-bags, 155.
Golden sulphide, 109.
Grease rubber, 196.
Grinding rolls, 205, 206.
 waste rubber, 226.
Grooved rolls, 145.
 wheels, 139.
Guayule, 14, 62.
Gutta Jelutong, 19, 115.
HANCORNIA speciosa, 12.
Heating tank, 23, 27.
Heel-pieces, 182, 183.
Herb-rubber, 14.
Hevea brasiliensis, 6, 12, 41.
 latex, 7.
High-pressure hose, 125.
High-tension cable, 190.
Hollander, 26, 29.
Hollow articles, 134.
 needle, 139.
Hose, 120.
 outer coat, 123.
 inner coat, 128.
 lining, 130.
 shop, 5.
Hot-air chambers, 85, 187.
 heater, 85.
 vulcanisation, 85.
 bench, 210, 211.
 water bottles, 155.
Hydraulic autoclave press, 135, 153.
 pressure, 147, 174.
Hydrocellulose, 193.
Hydrochloric acid formation in cold cure, 91.
IMITATION leather cloth, 171.
Ingredients of mixings, 104.
Inner coating of hose, 128.

- Inner soles, 182.
tubes, 150.
Insertions, 122.
Insides of galoshes, 182.
Instantaneous release, 45.
Instep pieces, 179, 182.
Insulating power, 191.
Insulation (electrical), 104, 188.
resistance, 191, 224.
tubes, 215.
"Ite" compositions, 192.
- "KAISER" mill, 204, 223.
Kickxia, 14.
Knife for "cut-sheet" work, 175.
- LAKE pigments, 88.
Landolphia, 14.
Lasts for galoshes, 178.
Latex, yield of, 8.
Leuconotis eugenifolius, 16.
Linseed oil, 206, 211.
varnish, 186.
Litharge, 63, 101.
Lithopone, 104.
Loom, 130.
- MADAGASCAR rubber, 15.
Magnesia usta, 63, 102, 214.
addition to mixings, 103, 141, 208.
Making-up galoshes, 184.
Mandrels, 121.
Mangabeira, 12.
Manhole washers, 144.
Manihot glaziovii, 11, 41.
Manometer, 67.
Maple wood, 178.
Masticators, 174.
Mattogrosso Para, 10.
Melting point of rubber-sulphur mixture, 62.
Melting tin, 203.
Metallic sulphides, 60.
Micranda siphonoides, 7, 41.
Microporosity, 137.
Mixing, 40, 41.
ebonite, 208.
rolls, 40, 44.
with cylindrical sieve, 45.
room, 42.
Mixings, various, 105-109.
for accumulator cases, 216.
balls, 137.
belting, 147.
cushions, 155.
dolls, 139.
ebonite, 206.
insulation tubes, 216.
enamels, 156.
elastic bands, 158.
imitation ebonite, 223.
inner tubes, 150.
rollers, 150.
rubber stamps, 161.
shoes, 181, 182, 184.
- Mixings for shoe-linings, 184.
vulcanised asbestos, 191.
Moisture in insertions, 131.
Mono-rubber, 19.
Motor tyres, 152.
Moulding, 134.
ebonite goods, 217.
Moulds for imitation ebonite work, 224.
Murupita, 7.
- NEGROHEADS, 9,
Nitrites, alkali, 137.
Nitrogen, 137.
- ODOUR of cold-cured goods, 91.
Oil, addition to mixings, 103, 117.
Oil-resisting qualities, 105.
Ornamentation of waterproof, 86.
Outer-covers (of tyres), 152.
Oxidation of crude rubber, 23, 35.
vulcanised rubber, 22.
Ozokerite, 137.
- PACKING-sheet, 141.
Paper rollers, 147.
Para, 6, 100, 203.
entrefine, 8.
hard and soft cure, 9.
plantation, 11.
sheet, 196.
Paraffin wax, addition of, 103, 117, 140.
Pedal-rubber punch, 155.
Perambulator tyres, 155.
Peripheral speed, 189.
Peruvian ball, 12.
Petroleum, 118.
Physical properties of rubber, 19.
Pigments, colouring rubber with, 88.
Pitch, 103, 116, 137, 190.
Plan of rubber factory, 1.
Plaster matrix, 159.
Plasticising, 225.
Plasticity of rubber, 20.
Pneumatic tyres, 150.
Polishing ebonite, 219.
Polish of ebonite, 218.
Polymerisation, 18.
Pontianac, 19, 115.
Porosity, 190.
Preliminary working of rubber, 40.
Press-cured sheet, 145.
Press-shop, 71.
Pressure equilibrium (in heaters), 85.
gauge, 67.
hose, 120, 128.
Printing cloth, 169.
Proofing, 162.
in colours, 165.
on calenders, 170.
Propeller-shaft, 221.
Proteins of rubber, 17.
Pumice, 216, 219.
Pump valves, 145.
Purification of crude rubber, 23.
Pyramidal impression, 179.

- RADIFIX, 196.
Raw rubber, 6.
Reclaimed rubber, absorptive power of, 226.
Refining rolls, 227.
Refractive index of ebonite, 202.
Refrigerator, 174.
Regeneration, 225.
Resin-content, 12, 17, 179.
Revolving sieve, 43, 45.
Roller-adjustment on calenders, 48.
Roller buffing machine, 149.
cores, 147.
Rolls for manufacture of "ite" sheet, 193.
Root rubber, 14.
Rosin oil, 118.
Rubber, African, 14, 15, 17, 18, 19.
American, 6-19.
Asiatic, 16.
belting, 145.
collection in Africa, 6, 15.
goods, thin-walled, 64.
printing on, 89.
resins, 101.
rollers, 147.
shoes, 177.
old, 225.
stamps, 159.
stamp ink, 161.
sheet, 159.
substance, 17.
waste, floating, 220.
Running hose, 120.
"Rustling" of double waterproof, 85.
- SALT solution, 174.
Salt-water tank, 174.
Sand-blast, 217.
Sapium, 7, 41.
Saponifiable oils, 118.
Seamless tubing, 139.
Seams, 2.
Sernamby, 9.
Shafting in washing-shop, 27.
Shaping machine, 145.
Sheet-cutting machine, 175.
Sheet-rubber, 141.
Shellac, 221.
solution, 157.
Shellacing machine, 198.
Shoe-cap linings, 184.
Sieve, cylindrical, 45.
revolving, 43.
Sieves, 43.
Silica, 216.
Singeing machine, 162.
Siringorana, 7.
Smoking rubber latex, 8.
Smooth surface of tubing, 140.
Soap solution, 176.
Soapy water, 214.
Sodium sulphite solution, 227.
Softening crude rubber, 23.
Soft-rubber articles, 120.
Solar oil, 211.
- Sole calenders, 180.
Soles of galoshes, 179.
Sole-sheet, 180.
Solution brushes, 132.
for hose, 126.
Solvents for chloride of sulphur, 81.
Specific gravity, 230.
Speed of mixing-rolls, 44.
washing-rolls, 28.
Spiral hose, 128.
spring, 128.
Spreading calenders, 56, 162, 170.
knife, 167.
machine, 162, 169.
shop, 5, 162.
Spread sheet, 198.
Starch, 86, 90.
Steam banks, 70, 190.
circulation, 70.
-trap, 67.
Stearic acid, 119.
Steel cylinders, 174.
mandrels, 129.
Stone-crusher, 204.
Stoppers, rubber, 135.
Storage of crude rubber, 23.
Stove for vulcanising galoshes, 187.
Stretching apparatus, hydraulic, 75.
Substitutes, 110.
examination of, 114.
Sulphur-bath vulcanisation, 77.
Sulphur, chemically combined, 60.
Sulphur chloride, 80, 157.
Sulphur heater, 77.
Sulphuring up, 63.
Surface tension, 81.
Surgical rubber goods, 155.
Synantherea mexicana, 14.
- TABLES of analytical values, 19.
ebonite vulcanisation results, 208, 209.
Tapping, 7.
Tapuru, 7.
Teats, vulcanisation of, 78.
Temperature equilibrium, 85.
fall of, in cold-cure, 82.
Theoretical basis of mixing, 100, 178.
Thread-cutting machine, 199, 200.
elastic, 196.
-sheet, 197.
Tin, block, 213.
-foil, 210.
calenders, 213.
drawing, 213.
manufacture, 213.
Tin, haloid salts of, 90.
Toothed-wheel gearing (of calenders), 48.
Transparency of cold-cured waterproofing, 86.
Tripoli powder, 219.
Trolley, for galoshes, 187.
Tube-machine, 121, 126, 140, 141.
Tubular rings, 145.
Tyres, motor, 152.
pneumatic, 150.

- UNION rubber, 195.
 Uppers, 181.
 Urceolo esculenta, 16.

 VACUUM-DRYING, 38.
 -hose, 120, 128.
 Valves, 135, 143.
 Varnishing galoshes, 185.
 -machine, 172.
 Vaseline, addition of, 118, 140.
 Velvet rubber, 195.
 Ventilation, 98.
 Virgin Para, 10.
 Vulcanisation, 20, 59.
 centralisation of, 67.
 coefficient, 61, 71, 225, 226.
 cold, 59, 80.
 plant for, 97-99.
 control of, 67.
 degree of, 61, 78.
 facilitation of, 63.
 in hot-air, 85.
 in sulphur-bath, 77, 79, 135.
 in water-bath, 211.
 of canvas hose, 131, 132.
 of cut-sheet, 78, 97.
 of galoshes, 187.
 of insulated wire, 190.
 of moulded goods, 135, 138.
 of Para-sheet, 200.
 of rollers, 149.
 of tyres (pneumatic), 152.
 of waterproof, 79, 87.
 tables, 83, 84, 208, 209.
 Vulcanised asbestos, 191.
 Vulcanising ball-press, 138.
 chamber for canvas hose, 134.
 cone, 131.
 heaters, 67.

 Vulcanising heaters with rotating drum,
 70, 190.
 machine, 91, 95.
 press, 71, 135.
 roller, 88, 92.
 shop, 5.
 solution, 81, 87, 157.

 WARP, 130.
 Wash-hollander, 26, 29.
 Washing, loss on, 32.
 raw rubber, 23.
 rolls, 24, 26, 28, 30.
 shop, 27.
 Waste rubber, 225.
 floating, 220.
 Water-bath vulcanisation, 211.
 bottles, hot, 155.
 -cushions, 155.
 -fastness of colours, 89.
 hose, 125.
 Waterproof fabrics, 84, 85.
 printing on, 169.
 Wax, addition of, 117.
 Weft, 130.
 Weighing-up mixings, 42.
 Weight of moulded goods, 135.
 Welt, 183.
 Wet-press rollers, 147.
 Winding apparatus, 47.
 Wire, galvanised iron, 128.
 insulated, 188.
 Workshops, 1.
 Wrapping, 121, 123.
 cloths, 123.
 machine, 124, 125, 142, 151.

 ZINC chloride, 229.
 compounds, 103.

INDEX OF NAMES.

- ADOLF, G., 192.
 Axelrod, Dr., 119.

 BALLA, 110.
 Baur, Dr., 190, 198.
 Borneo Rubber Co., 16.
 Breuil, P., 63.

 CLOUTH, F., 7, 12, 13, 61, 62.

 DITMAR, Dr. R., 21.
 Doughty, 178.

 ESCH, Dr. W., 110.

 FRANKENBURG, 89.

 GEBAUER, Fr., 31.
 Goodyear, Charles, 59, 201.

 HANCOCK, THOMAS, 59, 201.
 Harries, Dr. C., 17, 21.
 Haubold, C. G., jun., 45, 174, 188, 193,
 206, 211.
 Heil, A., 70, 211.

 Henriques, Dr., 12, 17, 19, 111.
 Herbst, Edgar, 19.
 Heywood and Bridge, 32.
 Höhn, 113.

 KAMERUN Kautschuk Co., 16.

 MACINTOSH, C., 173.
 Marzoll, 231.
 Meyer, L. Otto P., 201.
 Minder, J., 84, 166, 169.

 PARKES, A., 59.
 Passburg, 38.

 SHAW, F., 144.
 Soskin, Dr., 19.

 THEILGAARD, 225.
 Tilden, Prof., 21.
 Tröster, 153.

 ULE, E., 7, 12.

 WEBER, Dr. C. O., 61, 89.
 Wildeman, E. de, 6, 7.

