









# ITEMS OF INTEREST.

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# YEARLY INDEX.

	PAGE		PAGE
Abscessed Teeth and the Antrum . . .	588	Animal Life . . . . .	469, 566
Abuses of Bar and Bridge Work . . .	266	Antiseptics . . . . .	339
Aching Teeth, a Poem . . . . .	37	Antiseptics and Disinfectants . . . . .	261
"    "    Shall we Extract? . . .	557	Antrum and Diseased Teeth . . . . .	548
Aconite . . . . .	338	Applying the Dam . . . . .	559
Adhesion in Implanted Teeth . . . . .	112	Aromatic Sulphuric Acid . . . . .	341
Advanced Surgery . . . . .	44	Arrogance of Ignorance and Modesty of Wisdom . . . . .	423
Advertisements, Old Queer . . . . .	393	Artificial Precious Stones . . . . .	387
Advertising . . . . .	414	Artificial Teeth . . . . .	100, 179, 206
After-Pain in Extracting . . . . .	458, 511, 559	Artificial Teeth, Investment of . . . . .	487
Air Chambers in Plates . . . . .	242, 417	Artificial Teeth, Suggestions . . . . .	57, 123
Air, Importance of Plenty of Fresh . .	463	Artificial Teeth, Loops for Instead of Pins . . . . .	178
Alcohol for Business Men . . . . .	99	Artificial Teeth Mounting . . . . .	447
"    in Medicine . . . . .	29, 264	Artificial Teeth Polishing . . . . .	447
"    in Chemistry . . . . .	199	Association of Dental Faculties, Standard of . . . . .	224
"    Effects of . . . . .	99, 253, 278, 455	Association Work . . . . .	317
"    and the Sultan of Morocco . .	335	Attachment of Teeth by Cement . . . . .	234
Alloying Metals, Curious Facts . . . . .	570	Attachment to Hand-piece . . . . .	208
Alloy, Gold and Platina, How to Use .	505	Atkinson, Wm. H., In the Past . . . . .	411
Alloy, New . . . . .	509	Avocations with Vocation . . . . .	134
Aluminum . . . . .	526	Avoid Intoxicants . . . . .	253, 278
Alveolar Abscess, 363, 367, 448, 495, . . . . .	543, 548	Avoiding Evil Not Enough . . . . .	462
Alveolar Abscess, Death From . . . . .	457	Babbitt Metal . . . . .	243, 413
Alveolar Abscess and Gutta-percha . .	321	Backing Teeth . . . . .	447
Alveolar Abscess vs. Ulcers . . . . .	232	Bacteria . . . . .	4, 266, 288, 415
Amalgam . . . . .	177, 486	Bacterial Therapy . . . . .	4
Amalgam, Contraction and Expansion, . . . . .	84, 505	Bad Breath . . . . .	32, 38, 85, 167, 220
Amalgam Filling by the Rotary Pro- cess . . . . .	155	Bad Breath from Bad Teeth . . . . .	87, 167
Amalgam Filling, Do They Tend to a Sphere? . . . . .	185, 265	Baneful Effects of Alcohol, 29, 264, . . . . .	278, 335, 455
Amalgam Mixing . . . . .	127, 186, 203	Bar and Bridge-work (see Bridge- work) . . . . .	336
Amalgam, Sullivan's . . . . .	390	Barnacles . . . . .	94
Ambiguity in Style . . . . .	573	Battery, Electric . . . . .	95, 96
American Dental Association, Report for 1886 . . . . .	1, 80, 107	Beveled Edges for Fillings . . . . .	82
"American System of Dentistry," its Prosthetic Dentistry Reviewed, 241, . . . . .	289, 447	Bichloride of Mercury . . . . .	236, 341
American vs. English Teeth . . . . .	451	Bicuspid, Restoring . . . . .	31
Analysis of Dental Laws . . . . .	406	Bicycles and Tricycles . . . . .	430
Anatomist,—a Worthy Example,—Dr. E. L. Ford . . . . .	463	Bird, White and Dark Meat of . . . . .	269
Anatomy, Histology and Microscopy, I	1	Bites of Rattlesnakes, Clay for . . . . .	180
Anesthesia . . . . .	323, 486	Black-Boards, to Cover . . . . .	48
Anesthesia Impressions Unreliable . .	55, 186	Blackening Liquid . . . . .	336
Anesthetic Tooth Powder . . . . .	275	Blasting Powder . . . . .	336
Angle's System of Regulating . . . . .	529	Bleaching Compounds . . . . .	288
Aniline Oil as a Local Anesthetic . .	48	"    Teeth . . . . .	178, 272
		Bleeding After Extracting 81, 125, 455, 535 "    "    "    Death from . . . . .	440

	PAGE
Blood Poisoning	437
Bodily Odors	32, 38, 85, 87
Boils	432
Bones Alive	444
" to Make a Knot of	235
Books on Dentistry	174
Boys Learning Trades	527
Brain Forcing in Children	427
Brains in Work	412
Brass Cleaning	3:4
Brick Wall Stain	48, 144
Bridge Work	223, 225, 246, 266, 269, 316
.....	320, 391
Broaches, Swiss, Jewelers'	85
" to Make	173
" to Roughen	136
" to Wrap with Cotton	83
Broken Blocked Misfits	223
" Tooth Built up with Porcelain	313
Bug Question	415
Business Men and Intoxicants	99
Burs, Oiling	269
Call a Halt and Examine Critically	9
Camphor	338
Cancer and Tobacco	560
"Can't Afford it."	523
Capping Pulp	322, 553
" Teeth	515
Capsicum	306, 337
Carbolic Acid	340
Caries, Causes of	328
Casting Glass	225
Castor Oil	480
"Catching Cold."	140, 183, 222
Causes of Failures in Filling	62, 154, 484
Caution in Anesthetics	55
Cavity in Dental Plates	242, 417
Cell and Cell Life	469
Cement, Choosing a Good	129
" Extra Growth of Roots	2
" in Attaching Teeth	234
Cements	129, 293, 452, 528
" Dental	408
Cervical Decay and the Mallet	220
" Margin	32, 76
Chambers in Dental Plates	242, 417
Changing our Opinions	561
Chapt Hands	96
Characteristics of Erosion	349
" of organized Life	469, 566
Cheap Artificial Crowns	506
" Intellectual and Mechanical Training	43, 45, 84, 91, 377, 472
Cheek	513
Chemical Experiments	327
Chemistry, Dental	97
Chemistry of Alcohol	199
Childhood and Brain Forcing	427
Children, Deceiving	33
" Should be Educated Dentally	555
Children's Teeth	128

	PAGE
Chloral, Baneful Effects of	319
Chloride of Zinc	340
Chloroform and Physicians	218
Chronic Pyema	482
Cigarets	480
Clasps in Plates	291
Clay for Rattlesnake Bites	180
Cleaning Brass	334
" Instruments	502
" Teeth	324, 373
Cleanliness and Disease	38
Clear Shellac Varnish	240, 479
Clove Oil	339
Coal Tar, Saccharine from	192
Coating Blackboards	48
Cocaine as a Styptic	460
" Ether	149
" in Extracting	43
" New Use for	456
" Poison	133
" to Test the Purity of	178
Collect Promptly	235, 425
College, Dental	510
" Foreign	8
Colored Dentists	44, 561
Combination Work	28
Compensation to Expert Witnesses	201
Cancer Caused by Diseased Teeth	556
Conceal your Instruments	327
Congress of Dentists, International	52, 80, 476, 481
Conservatives and Cranks	182
Conservatism in Filling Materials	435
Contact in Teeth	426, 445, 451, 500, 502, 505
Contagions, Durations of	335
Contemporaries, giving Credit	570
Continuous Gum Work	173
Contraction and Expansion in Amalgams	84, 505
Copperas in White-Wash	96
" for Mice	96
Cores in Casts	243
Correcting Irregularities	305
Correct Speech, Cultivate	280
Corrosive Sublimate for Disinfecting Pulp	341, 347
Corundrum Wheels, to Make, Face, and Straighten	153
Cost of Dental Work	329
Cotton on Broaches	83
Cough, Indications of	479
Courage, a Poem	464
Courtesy Toward Others Faults	385
Crabs	287, 335
Credit to Contemporaries	236
Creosote	337
" vs. Carbolic Acid	285
Critically Examine Your Position	9
Crouse on Primary Education	472, 560
Crowded Supernumerary	351
Crown Prince Frederick's Cancer and Tobacco	560



	PAGE		PAGE
Crowns, Gold. . . . .	391, 451, 488, 512, 515	Dentistry Appreciated . . . . .	396
Crystal Cleaner . . . . .	95	“ How Long to Learn . . . . .	66
“ Ornaments . . . . .	144	“ Foreign . . . . .	83
Cultivate Correct Speech . . . . .	280	“ in England . . . . .	71
Curative Power of Water . . . . .	47	“ Preventive . . . . .	366
Cure, Grape . . . . .	96	“ Prosthetic . . . . .	245, 289, 447
“ Deafness by Treatment of Teeth . . . . .	557	“ Women in . . . . .	191, 145
Curious Facts in Alloying Metals . . . . .	570	Dentists, Colored . . . . .	44
Cut flowers . . . . .	48	“ Familiarity with Patients . . . . .	138
Cutting off the Teeth in Plaster casts . . . . .	242	“ Income . . . . .	274
“ Disks . . . . .	275	“ in the International Medical Congress . . . . .	361
“ Glass . . . . .	480	Dentists' Responsibility . . . . .	204
“ Spaces Between Teeth . . . . .	515	Devitalized Teeth, and Roots, Filling . . . . .	551
Dam, Applying . . . . .	559	Died of an Overcoat . . . . .	140
Danger in the Long Continuance of Gas . . . . .	219	Difference Between Carbolic Acid and Creosote . . . . .	285
“ Dangerous Laughing Gas” . . . . .	129	Difference Between Abscess and Ulcer . . . . .	232
Dark Meat in Birds . . . . .	269	Difficulty to Sleep . . . . .	83
“ Joints . . . . .	93, 250, 342	Difficult Teeth, to Extract . . . . .	521
Dead Pulps . . . . .	195	Digestion, the Physiology of . . . . .	139
Deafness Cured by the Treatment of Teeth . . . . .	557	Dignity with Our Patients . . . . .	138
Death of Eminent Men . . . . .	84	Disease and Unpleasant Odors (see Odors). . . . .	
“ of Dr J. R. Walker . . . . .	370	Disease and Cleanliness . . . . .	38
“ from Alveolar Abscess . . . . .	457	“ and Grape Juice . . . . .	96
“ “ Bleeding after Extraction . . . . .	440	“ of the Root Membrane . . . . .	401
Decayed Teeth and Bad Breath . . . . .	87, 167	“ of Antrum by Abscessed Teeth . . . . .	548
Decay of Cervical Wall and the Mallet . . . . .	220	Diseased Teeth and Cancer . . . . .	556
Decay of Meat and Vegetables . . . . .	332	Dies and Counter dies . . . . .	242
Deciduous Teeth, Replanting . . . . .	128	Dinner in Central Africa . . . . .	279
“ “ Save Them . . . . .	130	Diphtheria and Hydrogen Peroxide . . . . .	288
Decorum in Society Meetings . . . . .	217	Dishonorable Dealing . . . . .	301
Definitions in Physiology . . . . .	231, 234	Disinfectants . . . . .	340
Dental Associations, American, Re- port of 1886 . . . . .	1	“ and Antiseptics . . . . .	261, 339
Dental Books . . . . .	174	Disinfecting Pulps . . . . .	347
“ Colleges . . . . .	510	Disks, Sandpaper . . . . .	357
“ Chemistry . . . . .	97	Distinguished Characteristics of Or- ganized Life . . . . .	469, 566
“ Education . . . . .	353, 395	Does Vital Union Take Place in Im- planted Teeth? . . . . .	112
“ “ of Children . . . . .	555	Don't Extract . . . . .	228
“ Faculties Association, Stan- dard . . . . .	324	Drilling Teeth . . . . .	219
“ Furnaces . . . . .	169	Durability of Oxyphosphate Filling . . . . .	224
“ Laws of the Several States . . . . .	410	Durations of Contagious Diseases . . . . .	335
“ Plates (See Plates). . . . .		Earache . . . . .	452
“ Foreign Schools . . . . .	8	Early Eruption of Teeth . . . . .	139
“ Laws, Analysis of . . . . .	410	Earth and Life . . . . .	142
“ Lectures . . . . .	378	Eating . . . . .	368
“ Materia Medica . . . . .	337, 364	Edges of cavity for filling should be beveled . . . . .	509
“ Office, Cleanliness of . . . . .	89	Editing . . . . .	509, 570, 574
“ Schools, Foreign . . . . .	8	Educate Your Patients . . . . .	420
“ Section of International Con- gress, 52, 80, 125, 138, 476, 481, . . . . .	536	Educate the Masses . . . . .	453
“ Study . . . . .	50	Educated Endurance . . . . .	226
“ Text-books . . . . .	176	Education as a Prerequisite for Den- tists . . . . .	276
“ Work, Cost of . . . . .	329	Education Dental . . . . .	353, 395
Dentine Alive . . . . .	394	Education Industrial . . . . .	190
“ and Enamel . . . . .	270, 276	Education Preliminary . . . . .	552
“ Inflammation of . . . . .	267	Education Professional . . . . .	459
“ of Repair . . . . .	541		
Dentistry and Medicine . . . . .	387, 426		

	PAGE		PAGE
Educating Children in Dentistry....	555	Filling Teeth, Beveled Edges for....	82
Educating Students.....	514	“ “ Failure in.....	62, 154, 484
Effects of Alcohol, 99, 253, 264, 278,	455	“ “ Cervical Wall... ..	32, 76, 220
Effects of Tobacco.....	147	“ “ with Amalgam....	177, 486
Efflorescence in Brick Walls.....	48	“ “ “ “ by the Ro-	
Eggs, to Preserve.....	47	“ “ “ “ tary Process.....	155
Electrical Battery.....	94	Filling Teeth with Gold and Tin	21, 128
Electricity, Importance of.....	521	“ “ “ Gutta-percha....	264
Elements, Organic.....	186	Finishing Plates.....	434
Elevating Our Profession.....	418	First Molars; Save Them....	507, 554
Elevators for Extracting.....	126	First the Man, then His Calling....	407
Eminent Men, Death of.....	84	Fitting Plates.....	292
Enamel and Dentine.....	270, 276	“ Fixt”.....	33, 137
Enamel, Life of.....	510	Flannel, Shrinkage of.....	335
Enamel, Sensitiveness of.....	446, 509	Flasking.....	124
Encourage Genius.....	370	Flasks, Size of.....	243
Endurance of Necessary Pain—a		“ to pack.....	369
Poem.....	228	Flies, the Office of.....	144
Endurance, Educated.....	226	Florida's Dental Law.....	344
Engenol.....	82	Flowers, Cut.....	480
Energy and Perseverance.....	477	Force of Habit.....	334
English as She is Rote.....	419	Forcing the Brain in Children.....	227
English Dentistry.....	71	Ford, C. L., the Great Anatomist... ..	403
English vs. American Teeth.....	451	Foreign Dental Schools.....	8
Epsom Salts on Brick Walls....	48, 144	Formation of the Earth, and Life... ..	142
Erosion, Characteristics of.....	175, 349	Fortitude for Necessary Pain—a Poem	228
Esophagotomy.....	124	Fresh Air.....	463
Eucalyptus.....	340	Frittering Away Valuable Time in	
Evil, Avoiding, Not Enough.....	462	Our Societies.....	263
Evil Speaking.....	322	“ Frog Spittle”.....	336
Examine Critically.....	9	Front Teeth Regulated by Twisting.	406
Exostosis of Root, Fused Roots, and		Frosted Windows.....	86
Attachment of Teeth by Cement..	234	Fruit Stains.....	48
Expansion and Contraction in Amal-		Full Set of Teeth.....	549
gam.....	84	Furnaces for Porcelain.....	169
Experiments in Chemistry.....	327	Fused Roots, Exostosis on Roots, and	
Expert Witnesses.....	201, 299	Attachment of Two Teeth by Their	
Exposed Pulp.....	553, 74	Cement.....	234
Exposure and Prudence.....	284	Fusible Metal, Melott's.....	561
Extracting.....	228, 392, 545, 546	Gas.....	19, 489
Extracting, After-Pain From... ..	458, 511	Gas and Vitalized Air... ..	398, 418
Extracting a Cuspid.....	552	Gas Bag to Soften.....	333
Extracting Aching Teeth.....	557	Gas, Caution in Giving.....	55
Extracting, Effects of.....	413	Gas, Danger of.....	129
Extracting to Regulate....	421, 454, 474	Gas, Danger of Long Continuing....	219
Extracting Difficult Teeth.....	521	Gas, Impressions Under, Not to be	
Facing Corundum Wheels.....	153	Relied on.....	55, 186
Failures in Fillings.....	62, 154, 484	Gas Furnaces and Products.....	169
Failures of other Dentists.....	385	Gas, Heaven Under.....	180
False Impressions Given Children... ..	33	Gas in Combination.....	818
False Impressions in Patients.....	41	Genius and Talent.....	42
False Impressions in Patients Under		Gems,—a Poem.....	279
Gas.....	186	German Dental Education.....	558
Familiarity with Patients.....	138	Germs in Disease.....	276
Fatal Hemorrhage after Extracting..	440	George Watt.....	512
Fatal Poisoning by Cocaine.....	126	Germicides.....	340
Feeding Infants.....	326	Gilding.....	48
Filling Devitalized Teeth.....	551	Giving Anesthetics, Caution.....	55
“ Materials.....	435	Giving Credit to Contemporaries....	570
“ Proximal Cavities.....	28, 515	Glass Casting.....	225
“ Sensitive Teeth.....	127, 555	Glass, to Cut.....	480
“ Teeth.....	116, 221, 441, 515	Glue.....	191, 335, 384

	PAGE		PAGE
Gold and Tin Filling.....	21, 128	How to Use Gold in Filling.....	221
Gold and Platina Alloy, How to Manipulate.....	505	How to Use Gold and Platina Alloy..	505
Gold and Silver Solder.....	163	How we Grow.....	270, 469
Gold Crowns.....	391, 488, 512, 316	Humbugs and Novelties.....	560
Gold, How to Use, in Filling.....	221	Hurry and Dispatch.....	461
Gold on Rubber Plates.....	260	Hydrogin Peroxide.....	276, 340
Good Cement.....	528	"    "    in Dyphtheria... ..	288
Gouty Teeth, and Pathological Heredity	5	Hydronaphthol.....	30
Graduates in Dentistry for 1887.....	408	Hyperostosis.....	296
Graduates, Women.....	19, 145	Hypochloride of Soda.....	333
Grape Juice as a Cure.....	96	Ignorance, Arrogance of.....	423
Grasshoppers.....	240	Imagination of Patients.....	41
Great Workers.....	176	"    Under Anesthetics.....	186
Grease Spots.....	336	Immediate Root Filling.....	436
Grinding Surfaces of Teeth, Sensitiveness of.....	332, 520, 555	Implantation of Teeth, 20, 77, 108, 123, 140, 152, 160, 166, 217, 312, .....	323, 424, 561, 556
Grow, How We.....	270, 296	Implantation and Vital Union.....	112
Growth of Cement on Teeth.....	2	"    With Lead Root.....	571
"Gum Work".....	193	Importance of Electricity.....	521
Gutta Percha.....	256	"    of Fresh Air.....	463
"    "    Filling.....	264	Impressions Under Anesthetics Not to be Relied on.....	55, 186
"    "    in Alveola Abscess.....	321	Income of Dentists.....	274
"    "    to make it stick to the wall of Cavity.....	350	Inconsistencies of Our Spelling.....	90, 137, 187, 432, 516, 563, 573
Habit, Force of.....	334	Indications of a Cough.....	479
Halt and Examine Critically.....	9	"    of the Tongue in Disease.....	583
Hamamelis Verginica for Hemorrhage.....	125	Industrial Schools & Training.....	43, 45, 84, 92, 190, 191, 334, 377, 432, 560, 571
Hand Piece Attachments.....	208	Inflammation of Dentine.....	267, 275
Hands Should be Taught as well as Head.....	43	Ingrowing Toe-Nails.....	484
Hardening Steel.....	265, 274, 288, 432	Injury from Oxyphosphate.....	427
"    Plaster Quickly.....	333	"    "    Rubber Plates.....	88, 547
Have Some Side Show.....	134	Injustice to Neighboring Dentists.....	312
Hay Fever.....	383	Insomnia.....	9
Head Work and Skill.....	43	Instruments, Conceal them.....	327
"He & She" "Him & Her," Thon a New Word for.....	91	"    Keep them Clean.....	502
Heaven Under Gas.....	180	Insurance, Life.....	326, 422
Hemorrhage After Extracting.....	81, 125, 440, 455	International Medical Congress, Dental Section.....	52, 80, 125, 138, 476, 281, 536
"    Fatal After Extracting.....	440	—Dentist's Standing in.....	361
"    Diathesis.....	455, 535	International Tooth Crown Co.....	185, 562
Herbst in America.....	175	Intelligence and Skill.....	137
Herbst's Method of Filling.....	67, 212, 213	Intoxicants for business men.....	99
"    Obtundent.....	210	"    to be avoided.....	253, 278
Heredity and Gouty Teeth.....	5	"    and the Sultan of Morocco.....	335
Hints for the Laboratory (see Laboratory Hints).		"    effects of.....	455
Histology.....	1	"    regulating its traffic.....	479
Holder of Tongue and Mirror.....	249	"    prohibition of.....	464
Honesty.....	85	Inventions of Richmond's Crown Void.....	185, 562
Horse, Original Type.....	459	Iodine.....	337
How Long to Bec me a Dentist.....	66	Iodol.....	106
How Old Are You?—A Poem.....	371	Iodo orm.....	339
How Shall Our Boys Learn Trades?	527	Irregularities (see Regulation).	
How Shall We Eat?.....	368	Iron, its Value in Various Forms....	384
How Shall We Spell?.....	187	Iron Sulphate.....	340
How to Get Rich.....	575	Is Dentistry a Branch of Medicine?..	385
How to Educate Students.....	514	ITEMS, called "Reform ITEMS OF INTEREST.".....	574
How to Extract Teeth.....	273	"    It's often fatal," a Poem.....	327

	PAGE		PAGE
I've Found a Mine, a Poem.....	87	Manuel Training, 43, 45, 84, 92, 190,	
Jealousies.....	519	.....191, 334, 377, 472, 560,	571
Jeweler's Swiss Broach.....	85	Margin of the Cervical Wall.....	32, 76, 220
Joint's, Dark.....	342	Materials for Filling.....	435
Juice of Grapes as a Cure.....	96	Matching Old People's Teeth.....	137
Keep Instruments Clean.....	502	Matrices.....	540
Kerosene in Washing Clothes.....	528	Materia Medica, Dental.....	337, 364
Killing Pulp of Teeth.....	519, 561	Meat, Dark and White in Birds.....	269
Knapp's Crown and Bridge Work.....	391	Mechanical Dentistry, 198, 241, 289,	
Knots Made of Bones.....	235	.....	447, 476
Knowledge and Skill.....	137	Medicines, Use Of.....	263
Labarraque's Solution of Hypochlo-		Medicine, Preventative.....	273
rite of Soda.....	333	Medicine and Dentistry.....	387, 426
Laboratory Inquiries Answered, 106,	168,	Medicaments, Study Them.....	379
.....	341, 370	Meharry College.....	461
Labeled, All of Us.....	522	Mellott's Fusible Metal.....	561
Lanoline.....	167	Membrane of Root, Diseased.....	401
Lateral Incisor Regulated by Twisting	406	Mending Plates.....	379
Latin Venders.....	172	Men of Thought.....	238
Laws, Dental, of the Several States.....	410	Mercury Bichloride.....	236, 341
Lead Root for Implantation.....	572	Mercury Pure.....	551
Leaders in Language and Reformers		Metamorphosis.....	271, 272
in Spelling.....	431	Metal, Babbitt.....	243, 413
Lead-Foil Covered With Tin.....	44	Metal of Different Kinds Alloyed	
Learning Dentistry.....	66	Curious Facts.....	570
Lecturing on Dentistry.....	378	Metal for Models.....	140
Left-Handedness.....	281	Metal Plates.....	289
Life and Formation of the Earth.....	142	Metal Varnish.....	192
Life Insurance.....	326, 422	Microscopy.....	I
Life of the Bone.....	444	Microbes.....	43, 266, 276, 288, 340, 415
Life of the Cell and, How We		Microbes with Hair Combed.....	419
Are Built Up.....	469	Mineral Teeth, Needed Improvements,	57
Life of the Cement.....	449	Mirror for the Mouth.....	249
Life of the Enamel.....	510	Misfits and Broken Blocks, to Avoid,	223
Life of the Tooth.....	346	Missionary Dentists.....	558
Life of the Tooth Pulp.....	365	Missionary, a Sensible One.....	105
Life, Organic.....	469, 566	Mystery of Life.....	469
Life's Pendulum.....	375	Mixing Amalgam.....	127, 185, 203, 323
Lining Plates With Gold.....	360	Mixing Gold and Platina Alloy.....	505
Liquor Traffic.....	564	Mixing Brains with Work.....	137
Liquor Traffic, Regulating.....	479	Mixing Plaster.....	323
Lobsters.....	240	Modesty of Wisdom and Arrogance	
Lock-jaw.....	144	of Ignorance.....	423
Loose Plates, to Make Fit.....	79	Molars, First.....	507
Loss of First Molars.....	507	Molecular Metamorphosis.....	4, 272
Lost Time in Societies.....	263	Motherhood and Babyhood.....	286
Making Black-Boards.....	48	Mounting Teeth on Gold.....	447
Making Broaches.....	173	Mouth Sore From Plate.....	265
Making Corundum Wheels.....	153	Movable Bridge-work.....	225
Making Dentistry Appreciated.....	396	Museum of Dentistry.....	473
Making Gold Crowns.....	391, 488, 512	Naughty Dentist.—A Poem.....	181
Making Knots of Bones.....	235	Narcotics.....	338
Making Loose Plates Fit.....	79	Nasal Catarrh and Abscessed Teeth..	559
Making Metal Plates of Teeth.....	289	National Dental Museum.....	473
Mallet, and the Cervical Wall.....	220	Nature of Growth.....	296
Malpractice, Temptations to.....	154	Necessary Pain.—A Poem.....	228
Man and His Calling.....	407	Needed Improvements in Mineral	
Manipulating Amalgam.....	127, 185, 203	Teeth.....	57
Manipulating Gold and Platina Alloy,	505	Needs vs. Wants.....	378
Manipulating Oxy-Phosphate.....	473	Nestor of Anatomists.—C. L. Ford..	403
Man's Origin, and Science.....	282	Nerves of Teeth, and the Odonto-	402
		blasts.....	

	PAGE		PAGE
Neuralgia . . . . .	277, 432, 458	Packing Flasks . . . . .	369
New Alloy . . . . .	509	Pain and Fortitude,—a Poem . . . . .	228
New Anesthetic . . . . .	486	“ in Dentistry . . . . .	544
New Method of Continuous Gum Work . . . . .	193	“ Obtundants . . . . .	121
New Regulator . . . . .	416	“ Reflex . . . . .	27
Niagara Falls, to Utilize . . . . .	528	Partial Lower Dentures . . . . .	198
Nitrous Oxide . . . . .	19, 489	Paste . . . . .	144
“ and Vitalized Air. 398, 418		Past of Dentistry . . . . .	150
Nodules . . . . .	32, 81	Patients' Rights . . . . .	352
Nomenclature . . . . .	506	“ Familiarity With . . . . .	138
Nutrition, Protoplasmic . . . . .	4	“ Should be Educated . . . . .	420
Obtunders . . . . .	121, 212	“ Impressions not to be Relied on . . . . .	41
Odontoblasts and Nerves of Teeth . . . . .	402	“ “ Under Gas. . . . .	186
Offensive Breath. . . . .	32, 38, 85, 167, 220	Patents of the International Tooth Crown Co. . . . .	562
“ and Bad Teeth . . . . .	87	Pathological Heredity and Gouty Teeth . . . . .	5
Office, Cleanliness of . . . . .	89	Pendulum of Life . . . . .	375
“ of Flies . . . . .	144	Pennsylvania Society Proceedings. . . . .	24, 49
Oil, Aniline, as a Local Anesthetic . . . . .	48	Peroxide of Hydrogen . . . . .	276
“ Castor . . . . .	480	“ in Diphtheria . . . . .	288
“ Cloves . . . . .	337	Permanganate of Potassa . . . . .	211, 340
“ on Burs . . . . .	269	Perseverance and Energy . . . . .	477
“ Stains, to Remove . . . . .	478	Personal Cleanliness and Unpleasant Odors and Disease (see Bad Breath).	
Oiled Sand for Packing . . . . .	243	Personalities . . . . .	266
Old Advertisements . . . . .	393	Persulphate of Iron . . . . .	338
“ People's Teeth, to Match . . . . .	137	Phenol Sodique . . . . .	333, 339
One Standard for Both Sexes . . . . .	372	Philosophy of Growth . . . . .	27, 296, 469, 566
Operative Dentistry . . . . .	485	Physicians, and Chloroform . . . . .	218
Opinions Change if We Progress . . . . .	561	Physiology of Digestion . . . . .	139
Opium . . . . .	338	Physiological Definitions . . . . .	231
“ Oral Teeth” . . . . .	93	Pins for Teeth not so Good as Loops . . . . .	178
Order and Decorum in Society Meet- ings . . . . .	217	Placing Gold Crowns . . . . .	488
Organic Elements . . . . .	186	Plaster Casts, Cutting the Teeth from . . . . .	242
“ Life . . . . .	469, 566	“ “ Cores in . . . . .	243
Origin of Man, and Science . . . . .	282	“ “ Separating . . . . .	163
Ornaments for Office . . . . .	144	“ Mixing . . . . .	323
“ in Crystal . . . . .	144	“ to Harden Quickly . . . . .	333
Orthodontia . . . . .	529	Plate, Air Chamber in . . . . .	242, 417
Orthography Reformers . . . . .	431	“ Claps on . . . . .	291
Other's Failures . . . . .	385	“ Fitting . . . . .	292
“ Ough,”—a Poem on Spelling . . . . .	563	“ Lining with Gold . . . . .	260
Our Boys . . . . .	45	“ Making Loose Ones Fit . . . . .	79
“ Calling, but First the Man . . . . .	407	“ Making Sore Mouth . . . . .	88, 265
“ Dental Colleges . . . . .	510	“ Mending . . . . .	379
“ “ Societies . . . . .	504	“ Temporary . . . . .	496
“ Impress on Our Work . . . . .	380	Platina and Silver Plates . . . . .	414
“ Nomenclature . . . . .	558, 50, 431, 516	“ or Platinum, which? . . . . .	379
“ Orthography . . . . .	90, 137, 187, 432, 516, 563, 573	Pluggers, Serrations of . . . . .	79
“ Professional Standing . . . . .	64	Poems . . . . .	
“ Right to Live . . . . .	369	—A Gem . . . . .	279
Osteo Myelitis . . . . .	541	—Courage . . . . .	464
Overcoat Disease . . . . .	140	—English as She is Wrote . . . . .	419
Oxygen as a Therapeutic . . . . .	314	—Fortitude for Necessary Pain . . . . .	228
“ to Prepare . . . . .	384	—How Old Are You? . . . . .	371
Oxyphosphate Injuring Teeth? . . . . .	427, 475, 505	—It's Often Fatal . . . . .	327
“ Durability of . . . . .	224	—I've Found a Mine . . . . .	87
“ How to Judge of Good . . . . .	129	—“ Ough!” Spelling Lesson . . . . .	563
“ in Wedging Teeth Apart . . . . .	129	—Press Me Closer . . . . .	327
“ Manipulating . . . . .	473	—Strikes . . . . .	180

	PAGE		PAGE
Poems.		Regulator for Regulating Teeth.	416, 529
—That Naughty Dentist.	181	Replantation.	31, 225
—To An Aching Tooth.	37	Replanting Deciduous Teeth.	128
—What Barred Them.	137	“Reform Items”	574
—“Yacht.” Spelling Lesson.	516	Report of American Dental Association of 1886.	I
Poisoning, Blood.	437	Reproductive Power of a Tooth.	307
“ by Cocaine.	126	Requisites to Success.	224
“ by Tobacco.	145	Responsibility of Dentists.	60, 204
Polishing Disk Cutter.	275	Restoring a Bicuspid.	31
“ Pianos.	95, 480	“ Gloss to a Silk Hat.	384
“ Plates.	343	Retrospective.	150
Porcelain and Porcelain Teeth.	100	Rheumatism.	479
“ Added to Common Teeth.	313	Richmond’s Inventions Void.	183
“ Work.	193	Rich, How to Get.	575
Potassa Permanganate.	211	Ridicule no Argument.	276
Powder for Blasting.	336	Right and Left Handedness.	281
“ for Teeth.	248, 275	“ to Live.	369
Power of Water-Cure.	47	Rights of Patients.	352
Precious Stones, Artificial.	287	Roaches.	336
Predisposing Causes of Caries.	328	Root Crowning.	515
Preliminary Education.	552	“ Exostosis.	234
Preparing Amalgam for a Filling.	186	“ Membrane, Disease of.	401
“ Gold & Platina for a Filling.	384	Roots, Fused.	234
“ Oxygen.	384	“ Devitalized Filled.	551
Prerequisite Education for Dentistry.	276	Rotary Method with Amalgam.	155
Preserve the Deciduous Teeth.	419	Rougening Broaches.	136
Press Me Closer,—A Poem.	327	Rubber Band with Gold Plate.	260
Preventing Hemorrhage.	81	“ Sore Mouth to Prevent.	547
“ Dark Joints.	250	“ Physical properties of.	156, 244
“ Sore Mouth by Smooth Plate.	547	“ to Soften Vulcanized.	79
Preventive Dentistry.	366	“ Vulcanizing.	463
“ Medicine.	273	“ Plates Injurious?	88, 129
Prickly Heat.	336, 527	Rum Selling.	513
Primary Education.	472, 560	Saccharine from Coal Tar.	192
Printed Matter, to Copy.	480	Salicylic Acid.	339
Professional Education.	459	Saliva and The Teeth.	173, 229
“ Standing.	64	Sand Oil for Packing.	243
Prohibition.	464	“ Paper Disks.	357
Prompt Collections.	235, 425	Save Children’s Teeth.	130
Properties of Vulcanite.	156, 244	“ the Teeth.	228
Prosthetic Dentistry 189, 241, 289, 447, 476		“ the Sixth Year Molars.	554
Protoplasmic Nutrition and Molecular Metamorphosis.	4	Schools, Industrial. (See Industrial Schools.)	
Prudence in Exposure to Weather.	284	“ Dental.	510
Pulp Capping.	322, 515, 553	“ Foreign Dental.	8
“ Exposure, Management of.	74, 78	Science, and Man’s Origin.	282
“ Killing.	519, 561	Secret of Success.	508
Pulps, Disinfecting.	347	Sedatives.	338
Pulpless Teeth.	355, 537	Self-deception of Patients.	41, 55, 186
Pure Mercury.	551	Self-packing Vulcanizer.	117
Purity of Cocaine, Tests for.	178	Sensible Missionary.	105
Queer old Advertising.	393	“ Truth.	127
Quoting.	236	Sensitiveness of Grinding Surface of Teeth.	332, 520, 555
“ Rabies.”	513	Sensitiveness of Enamel.	446, 509
Rain, Use of.	282	Separating Plaster in the Flask.	163, 235
Rattle Snake Bites and Clay.	180	“ Teeth.	426, 445, 451, 515
Reflex Pain.	27	Serrations in Pluggers.	79
Regulating the Teeth.	305, 529, 550, 565	Septic Sponge.	484
“ by Extracting.	421, 454, 474	Shall I Extract?	392
“ by Twisting.	406	“ We Make Temporary Plates?	496
“ the Liquor Traffic.	439		

	PAGE		PAGE
Shamelessness of a Few Dentists . . . . .	40	Superfluous "U" . . . . .	573
Shape of an Amalgam Filling . . . . .	265	Supernumeries, Crowded . . . . .	151, 351
Shellac Varnish . . . . .	240, 479	Surgery, Advanced . . . . .	44
Side Shows, Have Some . . . . .	134	Swiss Jeweler's Broaches . . . . .	85
Silver, and Gold, Solder . . . . .	163	Syphon and Mirror for Mouth . . . . .	249
Sixth Year Molars . . . . .	507, 554	"Taking Cold" . . . . .	140, 183, 222
Size of Flasks . . . . .	243	Talent and Genius . . . . .	42
Skill <i>vs.</i> Knowledge . . . . .	137	Tannin for Ingrowing Toe-nails . . . . .	384
" to be Encouraged . . . . .	370	Tariff on Platina . . . . .	237
Skin, the . . . . .	158	Teaching the Hands as well as the Head . . . . .	43
Sleeplessness . . . . .	983	Technic Training and Schools . . . . .	43, 84, . . . . . 91, 334, 377, 472, 560, 571
Smooth Plates to Prevent Sore Mouth Snobbery . . . . .	547 368	Teeth, Abscess <i>vs.</i> Ulcer . . . . .	232
Society's Time Frittered Away . . . . .	203	" Aching, Shall we Extract? . . . . .	557
Soda Hypochloride . . . . .	333	" and Neuralgia . . . . .	458
Softening Vulcanized Rubber . . . . .	79	" and Deafness . . . . .	557
Solder for Gold and for Silver . . . . .	163	" and the Breath . . . . .	87
Soldiers, and Tooth Pulling . . . . .	304	" and the Saliva . . . . .	229
Solid Food for Infants . . . . .	326	" Artificial . . . . .	100, 179, 206
Somnambulism . . . . .	983	"    " Investment of . . . . .	447
Sore Mouths From Plates . . . . .	265, 547	"    " Loops for Instead of pins . . . . .	178
Society Meetings, Decorum in . . . . .	217	"    " Mounting . . . . .	447
South Light for the Dental Chair . . . . .	125	"    " Needed Improvements in . . . . .	57, 173
Southern Dental Association . . . . .	433, 524	"    " Polishing . . . . .	447
Spaces Between Teeth . . . . .	426, 445, 451, 500, 502, 515	" at Birth . . . . .	139
Speech, Be Correct In . . . . .	280	" Bleaching . . . . .	178, 272
Spelling, 90, 137, 187, 432, 516, 563, Spheroidity of Amalgam Fillings . . . . .	185	" Built up with Porcelain . . . . .	313
Spiders . . . . .	287, 374	" Capping . . . . .	515
Stains from Fruit . . . . .	48	" Cleaning . . . . .	324, 373
" on Brick Walls . . . . .	48, 144	" Contact in 426, 445, 451, 500, 502, 515	515
Standard of the Dental Faculties As- sociation . . . . .	224	" Deciduous, Preserve them . . . . .	419
" of the Sexes is One . . . . .	372	" Diseased, and "Cancer." . . . .	556
State Dental Laws . . . . .	410	" "Diamonds" in . . . . .	415
Standing of Dentists in the Medical International Congress . . . . .	361	" Early Eruption . . . . .	139
Steel, to Harden or Temper, 265, 274, . . . . .	288, 335	" Effect of Diet on . . . . .	514
Sterno Carpine as a Local Anesthetic, Stimulants, 29, 99, 199, 253, 264, 279, . . . . .	335, 455	" Extracting . . . . .	273
Sting of Bees . . . . .	95, 96	"    " Difficult Teeth . . . . .	521
Stones, Artificial, Precious . . . . .	287	" Filling. (See Filling Teeth.)	
Straightening Corundum Wheels . . . . .	153	" in Contact. (See Contact.)	
Strikes.—A Poem . . . . .	180	" Inflammation . . . . .	267, 275
Studying Dentistry . . . . .	50, 512	" Injured by Oxyphosphate . . . . .	427
Study Your Medicaments . . . . .	379	" Irregularities. See Regulating	
Style, Literary . . . . .	330, 573	" Killing Pulp . . . . .	519
Styptics . . . . .	338	" Life of . . . . .	346
Successful Men . . . . .	383	" Nerves and Odontoblasts . . . . .	402
Success, Requisites For . . . . .	224	" of Old Peoples, to Match . . . . .	137
Sugar from Various Substances . . . . .	48	" "Oral." . . . . .	93
" in Mortar . . . . .	333	" Powder for . . . . .	248, 275
Suggestions About Artificial Teeth . . . . .	173	" Pulpless . . . . .	74, 78, 195
Sullivan's Copper Amalgam . . . . .	399	" Regulating by Twisting . . . . .	406
Sulphate of Iron . . . . .	340	" Reproductive Power in . . . . .	307
" of Magnesia on Brick Walls, . . . . .	48, 144	" Sensitive . . . . .	127, 332, 520
" of Zinc . . . . .	338	" Separating . . . . .	451
Sulphuric Acid, Aromatic . . . . .	341	" Temporary . . . . .	130
		"    " Replanting . . . . .	128
		" Treating, Wisdom Necessary . . . . .	104
		" With Dead Pulp . . . . .	74, 78, 195
		" Value of . . . . .	454
		Temperance . . . . .	264, 278, 383, 464

PAGE	PAGE
Tempering Instruments.....	Veratria..... 216
..... 265, 274, 288, 335, 432, 479	Very Hard Steel..... 265
Temporary Plates..... 496	Virginica Hamamelis for Hemorrhage 125
Temptations to Malpractice..... 154	Vital Union of Implanted Teeth..... 112
"    to do Cheap Work..... 247	Vitalized Air, and Nitrous Oxide 398, 418
Testimony, Expert..... 298	Vocations Helped by Avocations.... 134
Tendency of Amalgam to a Sphere..	Vulcanite, Physical Properties... 156, 224
..... 185, 265	"    Lined With Gold..... 260
Text Books on Dentistry..... 174	"    To Soften..... 79
Thief, and no Other Name to Fit... 503	Vulcanizers, the New Self packing... 117
Thinking and Working..... 84, 412	Vulcanizing Rubber..... 463
Thirty-Two Teeth in the Mouth.... 549	Wants <i>vs.</i> Needs..... 378
Thou for "He & She," "His & Her,"	Warranted..... 60
"    Himself & Herself,"..... 91	Warts..... 432
Thoughtful Men..... 238	Washing, Kerosene in..... 528
Tin and Lead Foil..... 20, 44, 128	"    Turpentine in..... 48
Tincture Aconite..... 338	Was it Honest?..... 85, 152
Tire, What Causes?..... 192	"    Honorable?..... 299
Tit For Tat, A Fable..... 227	Wasps..... 432
To An Aching Tooth, A Poem..... 37	Water as a Cure..... 47
Tobacco..... 93, 147, 382, 480, 560	We are all Fallible..... 392
"    and Cancer..... 560	Wedging Teeth Apart..... 129
Tolerance..... 460	We Impress Ourselves on our Work.. 380
Too Much Drilling..... 219	Wells, Deep..... 526
To Make Dentistry Appreciated.... 398	What are "Rabies?"..... 513
Tonics..... 338	"    are you Labeled?..... 522
Tongue Holder and Mirror..... 249	"    a Shame!..... 40
"    Indications in Health and	"    are the Distinguishing Charact-
Disease..... 5, 83, 279	eristics of Animal Organizations? 566
Tooth Crown Company..... 185, 562	"    Barred Them?—a Poem..... 133
Trades, Learning..... 527	"    is a Cell, and What is Cell Life? 469
Treatment of an Abscess..... 495, 542	"    is a Gentleman?..... 371
"    of Exposed Pulp..... 553	"    Makes Him Tired?..... 192
"    of Teeth Cures Deafness... 557	White and Dark Meat in Birds..... 269
Turpentine in Washing..... 48	"    Incrustations in Brick Walls 48, 144
"    Distilling..... 463	Who Can Answer?..... 511
Twisting the Front Teeth to Regulate. 406	Whooping Cough..... 31, 528
Ulcers <i>vs.</i> Abscesses..... 232	Window Frost..... 85
Union in Implanting Teeth..... 112	Wisdom is Modest; Ignorance is Ar-
University of Pennsylvania..... 560	rogant..... 422
Unpleasant Odors. See Offensive	Witnesses, Expert..... 201
Odors.	Women in Dentistry..... 145, 19
Use of Rain..... 283	Work and Brains..... 84, 412
Uses of Oxyphosphate..... 164	"    Combination..... 28
Using Gold and Platina Alloy..... 505	"    Cost of..... 329
Utilizing Niagara Falls..... 328	"    in our Meetings..... 317
Vacuum Cavities in Plates..... 417	Wrapping a Broach with Cotton.... 83
Valuable Time Lost in Society Meet-	"Yacht"—a Poem on Spelling..... 516
ings..... 263	Yielding to Temptation, to do Cheap
Value of Correct Speaking..... 280	Work..... 249
"    of Teeth..... 454	Younger's Process of Implantation
Variation in the Effects of Cocaine.. 407	(See Implantation).
Varnish, Clear Shellac..... 240, 479	Zinc Chloride..... 340
"    for Metals..... 192	"    Sulphate..... 338
Venders of Latin..... 172	"    to Prevent Rust..... 96



# ITEMS OF INTEREST.

VOL. IX.

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No. I.

## *Shots from the Profession.*

### AMERICAN DENTAL ASSOCIATION.

[Corresponding Report for ITEMS OF INTEREST by "Mrs. M. W. J."]

Dr. Brophy, of Chicago, and Dr. Guilford, of Philadelphia, exhibited new forms of matrices, with blackboard illustrations. Dr. Fernandez showed an instrument for dressing corundum wheels and points, consisting of a black diamond set in a steel handle. The wheel being revolved in the engine, is dressed as wood is turned in a lathe. Dr. Perry exhibited his new hand-piece attachment, which combines the advantages of the Bonwill engine and the Elliott-Suspension engine, using the Hodge hand-piece. The hand is relieved from all weight, the arm being supported by a spiral spring, while a steady lathe-like motion, free from noise, is secured by a series of pulleys, etc. Dr. Watkins, Mont Clair, N. J., exhibited six instruments (three double-ended handles) designed for finishing amalgam fillings in approximal cavities, where fillings *put in by others* are so apt to project beyond the cervical walls. These instruments, having different curves, fit around the necks of the teeth from any position, and being spring-tempered and very thin, with a knife edge, the amalgam can be scraped or cut in any direction removing all excess, requiring very little strain and very delicate touch. Dr. Watkins, also exhibited a tooth-brush designed to reach the posterior and lingual as well as the labial surfaces of all the teeth.

### ANATOMY, HISTOLOGY, AND MICROSCOPY.

Dr. Frank Abbott, of N. Y., reported that though little had been published during the past year, in the line of work of this section, much that is of any great importance is being pushed forward. A paper entitled *EBURNITUS*, published in the *Ind. Prac.*, confirms fully the results of investigations published by Dr. Abbott, in 1879, in which caries of the human teeth was attributed to a process of inflammation. This view was then opposed on the ground that there was not

sufficient living tissue in dentine to permit of inflammation. Dr. Abbott, proceeded to read a paper entitled

#### HYPEROSTOSIS OF ROOTS OF TEETH.

This term includes all the forms of pathological new growths of cement, such as ostioma, exostosis, hypertrophy of the cement, etc., the causes enumerated, being irritation of the cement through caries of the tooth or exposure of the pulp; localized irritation of the pericement, or from gout, etc.; irritation of the pericement of the upper teeth from gravitation after loss of antagonizing teeth, and the irritation caused by outgrowths of cement. The question raised was—can such new growths occur after the cement has been fully formed?—answered in the negative by the author of the paper, microscopical studies of such tumors having convinced him that they were in most instances a fetal malformation. He concluded, from a careful study, that the teeth were sound, and the pulps alive when the bony growth was formed, and doubted the possibility of an osseous new formation after the death of the pulp. Cement, like other bone tissue is undoubtedly built from medullary tissue, the lacune containing living protoplasm, the canaliculi holding for tenants fibres of living matter. Augmentation of the cement is impossible without preceding augmentation of the medullary tissue, this being caused by increased nutrition or irritation. Pathologic cement is endowed with the same properties of life that Bödecker has demonstrated in normal element. The paper read by Dr. Abbott, was illustrated by a series of micro-photographs of studies of these diseased structures, as found in over seventy teeth, which were carefully classified in different groups, the whole proving the structure of hyperplastic cement to be identical with that of normal cement, the canaliculi of both holding filaments of living matter, between which and the basis substance a slow circulation is going on, carrying nourishment to and effete matter away from the tissue, rendering intelligible the pathological changes of a pathological tissue. The paper was discussed at some length by Drs. Atkinson, Thompson of Topeka, Ingersoll, and Morgan.

Dr. Atkinson, said this section was the only one in which clean work can be done: that such papers and drawings are stepping-stones, enabling us to comprehend the changes which take place in bodies that we can see. No powers of the microscope can enable us to see molecules or atoms; these are ideal bodies which in combination become perceptible to the senses. He objected to the term *hyperostosis*, as doubtful nomenclature, for which he would substitute *hypercementosis*. He also objected to doctrines being pronounced settled which were mere hypothesis and assumption,—as, for instance, that these growths were only developed in teeth with living pulps. He had seen ten,

twelve or fifteen distinct laminae of cement corpuscles laid on and fusing together five teeth in one solid phalanx, which would not have occurred before their eruption in the line in which they stood with the biting surfaces in perfect opposition. We have had glimpses of law enough to show that *want of use* "raises hell," in the way of misspent energies. We should not ask *why* but *how?* The microscope reveals *how*, but after it is done: we find only the tracks of what has been done, but we don't know when it was done. As every man tries to hold his own, so do the corpuscles or molecules: each individual body tries to maintain its own existence.

Dr. Thompson, thought there might perhaps be a modular idiosyncrasy accounting for these abnormal growths.

Dr. Atkinson, offered a Delmonico's dinner to any one who will prove such growth on a tooth that has never lost its occlusion.

Dr. Ingersoll, defined the distinction between normal or physiological sensitiveness of inflamed dentine. There is normal excitation but not normal irritation, though excitation may develop into irritation. There is great difference in the thickness of cement, and what we term hypercementosis may be physiological, and we may also have pathological excementosis. And here we may find one factor in decay. Dentine is tubercular, and bone is cancellated, but in both, the medullary tissue may undergo a process of inflammation, swelling at the expense of the walls of the canaliculi, producing softened bone,—the swelling of the dentinal fibrils at the expense of the hard tissue. What we call demineralized dentine is the broken down tubuli-germs. Acids then, are not the only factors in caries: we must include inflammation before we have the whole.

Dr. Morgan considered the paper one of great value, and the drawings the most beautiful he had ever seen. He could accept most of the statements, but must take issue with some of the inferences. He could not agree that hypertrophy of the cement never took place after the death of the pulp. Cement being the result of function of the investing membrane, those functions being entirely independent of the pulp, the death of the latter would not interfere with the functions of the former. He also considered that sensitiveness of dentine might be due sometimes, not to inflammation, but to increased circulation in the efforts of nature to heal lesions by first intention, as when teeth were worn down, and nature filled in the tubuli with lime-salts, causing eburnation, or increased sensitiveness from increased circulation for the time being.

Dr. Abbott closed the discussion, maintaining the position taken in the paper.

Dr. Hooper, Louisville, Ky., reported a case of Osteo-Sarcoma,

a case of exsection of inferior maxillary nerve, and a case of Necrosis of the lower jaw, due to alveolar abscess treated for nine months by physicians.

Dr. A. W. Harlan read an exhaustive paper on

#### BACTERIAL THERAPY.

The agency of micro-organisms and their mode of action; the history of the employment of disinfectants, antiseptics, *microbicides*, etc., and the comparative values of different therapeutic agents now employed. The subject passed without discussion.

Dr. How read a brief paper on the value of litmus tests of the oral fluids, and distributed charts with diagrams for observation.

Dr. A. H. Thompson (Topeka, Kansas,) read a paper entitled

#### PROTOPLASMIC NUTRITION AND MOLECULAR METAMORPHOSIS.

The real basis of all animal tissues—embryonic protoplasm—is that element which conveys nutrition, directs tissue-building, and carries nutriment to it, and waste from it. Protoplasm, however, appears, in its primitive simplicity, in very few, if any, animal tissues, being impressed with mysterious powers of differentiation into specified organs and tissues of complex organization. This is the great mystery of life—why all the forms of all the tissues should assume special shapes and characteristics and types, under impulses conveyed by their minute cells—nutriment is carried in from the stream of pabulum, and waste carried out that each tissue may perform its allotted work in the economy of the organization.

It is a mooted question, with some, whether the enamel, being an epithelial though calcified tissue, should be classed as a vital or an exfoliated product, but the organic areas of protoplasmic elements prove it to be vital during the life of the pulp. Dentine is formed in a protoplasmic matrix by the reduction of supplied lime salts, formed in successive capsules, pierced by fibrils around which permanent tubuli are formed. The enamel is formed in an analogous manner, though dissimilar in detail, nutrition, however limited, being carried on with corresponding elimination of waste, by means of the connection with the living matter of the dentine at its periphery, this movement of fluids being maintained by osmosis. The hunger of the tissues for food causes it to draw in the pabulum it craves, its waste being expelled with equal force. The more dense the tissue, the less the nutrition and the waste. The tubuli of the dentine anastomose in the same manner with the canaliculi of the cement, the circulation being continuous through the entire body of the tooth, by anastomosis between the dental tubuli and the canaliculi of the cement on the one side, and the areas of living substance in the enamel on the other. Thus molecula

change is possible throughout tooth structure, and its tissues are subject to alterations through pathological conditions of the circulating fluids. The calcification of teeth, recognized in the changes in this structure occurring from eruption to adolescence and old age, when the whole tooth sometimes becomes calcified, forces the admission of a possible decalcification. It is often recognized not only during gestation and lactation, but under other conditions, teeth sometimes taking on a condition of softening, something acting through the circulating fluids disintegrating and carrying off the lime-salts, inducing a retrograde metamorphosis. In some diseases molecular construction is held in abeyance while waste still goes on; in others, waste is lessened while construction goes on. The teeth cannot be exceptions to the general law of vital tissues.

Dr. A. H. Smith read a paper on

#### THE TONGUE IN HEALTH AND DISEASE.

Those conditions of the tongue which were once regarded as affording a reliable index to systemic conditions, the result of a secretory-process of the tongue itself, are now considered due largely to vegetable parasites, a growth of fungus from spores deposited in the papilla of the tongue from the food or from inspired air, growing with the most rapidity during the night when the tongue is at rest.

The teeth if healthy and intact, form a protecting wall around the tongue; if decayed or broken-down they become a source of irritation and disease of the tongue, often of traumatic ulcers. Jagged teeth, rough fillings, and ill-fitting plates are enumerated among the exciting causes of cancer of the tongue. The slightest lesion of the tongue should be noted, and the source of irritation removed if possible. The dentist may often prevent a simple ulcer of the tongue from developing into carcinomata and its usually fatal termination.

Dr. Thompson read a second paper entitled:

#### PATHOLOGICAL HEREDITY, AND GOUTY TEETH.

We are in the dark as to *how* defects and deformities of the teeth are transmitted. It is perhaps due to perversion of the nutritive fluid, the pabulum being poisoned by disease, or the formative organ itself may be affected, causing the death or distortion of the building cells. The structural injuries due to hereditary influences are far more fatal than the marking or defects left by exanthematic and intestinal affections. The effects of transmission are so invariable that characteristic marks are recognized pathognomonic signs of certain diseases, having this diagnostic value to the pathologist. Hence the desirability of making and recording observations in this direction. Having had somewhat unusual facilities for studying *gouty teeth* in an English family in which gout had been hereditary for several generations on both sides, even the children suffering from infancy, Dr. Thompson

had taken casts of the teeth, which were pronounced illustrations of the characteristics described by different English authorities. The discussion of these papers were very brief in view of their value.

Dr. Ingersoll doubted the expression "*inherited disease*,"—that only a tendency to certain pathological conditions was transmitted. In some families, the members die at a certain age, but only the tendency is inherited, as the disease itself is not present up to that age.

Dr. Morgan thought this transmission due to what stock men called *potentiality*, depending rather on nervous than on physical organism. As a rule, diseases of the tongue do not fall within the range of the dental profession. In forty years' practice, he had never seen but one case in which aphthous ulcers appeared to coincide with large amalgam fillings, and which were cured by the substitution of gold fillings.

Dr. Brophy thought that dentists had the opportunity of detecting cancer of the tongue much more frequently than was suspected; he had found a number in the last four years—ulcers originating from broken teeth might be arrested if taken in time, which otherwise might develop malignant cancers ending in death.

Dr. Harlan said that the acid condition of the oral fluids, mentioned by Dr. How, was perhaps more often due to germs than to disease, the excrementitious products of these organisms being acid ferments; the natural mode of correction being the destruction of the germs. He did not believe that the diseases of the tongue were out of the province of the dentist, or that the teeth should be the boundary of his horizon. He did not believe that carcinomata was due to the teeth—the initial lesion was due to other causes, though the irritation of a broken tooth may develop the tendency.

Prof. Truman thought the mixt fluids of the mouth were rarely found to be acid. An acid reaction would be found only in places where there was a state of rest, as at night when there was but little secretion of saliva. In the day time the fluids are usually neutral.

Dr. Atkinson said that microbes were the immediate cause of disease, the antecedents of *unhealth*; retrogressive molecular changes in living bodies constituting diseases. Food is churned into pabulum, which is carried into the territory of needy tissues. *Listening* in the mind is the equivalent of the tissues craving pabulum.

Several amendments to the constitution were adopted.

The place of next meeting is Asheville, N. C.

Officers:—Dr. W. W. Allport, Chicago, President; Dr. McIlhaney, Ga., First Vice-President; Dr. Dennis, Cal., Second Vice-President; Dr. Geo. H. Cushing, Rec. Secretary; Dr. A. W. Harlan, Cor. Secretary; Dr. Geo. W. Keely, Treasurer.

## THOUGHTS OCCASIONED BY READING SCIENTIFIC PAPERS.

## A STUDENT'S REFLECTIONS.

The Amalgamated Mutual Admiration Society convened at Blanktown, May 11th, 1886. The president, Dr. Lewis Toothman, on taking the chair delivered his address. He was gratified to observe the increase of membership, and the great stride during the year toward perfection in the dental art. Many of the members had attained to a national reputation for ability and knowledge. He congratulated the association on its bright prospects and hoped the present meeting would be harmonious and productive of great good. After a lengthy discussion of the address, A. W. Knowall, M. D., D. D. S., read a paper on "Bacteria as the Cause of Caries." He gave admirable illustrations of his paper by means of the black board and chalk, and received close attention. Dr. Inquire asked if Dr. Knowall had ever seen a bacteria with hair on its head. Seeing something unusual in one of this species one-day he placed the little gentleman under his lense and discovered, to his amazement, that the bacteria had a hairy head, and, moreover, its hair was parted in the middle. This created a sensation. Dr. Knowall eagerly asked if he had his specimen with him. Dr. Inquire produced it and, sure enough, beneath the lense (made by Zeis) could be seen the bacteria and its hair combed just as Dr. Inquire had said. It was a great discovery. After the excitement had measurably subsided, Dr. Knowall resumed his address. Suddenly, as all eyes were fastened on the black board, the chalk bacteria was seen to move. The Dr. explained by saying that the species of red bacteria represented by this specimen possessed a much stronger constitution than the others; the blue ones being of a weak and melancholy disposition, and the black possessing a sluggish nature, while the red were fiery and untamable. All of the Doctor's specimens were bald. Dr. Knowall thought the red bacteria had the remarkable ability of crawling into their holes and pulling the holes in after them. He knew of no one but himself who had discovered them. The lecture was very instructive and the lecturer received the thanks of the society.

W. B. Krank, A. M., M. D., read a paper on "Dental Spiritualism" which was vigorously applauded. As near as could be ascertained he was of the opinion that all is not known that may be known. Dr. Tiresome and Dr. Bighead discussed the paper. The former thought the female toad is estimated by its male as beautiful simply because both are toads. Dr. Bighead was of the opinion that all toads are soulless. All this was highly interesting and instructive to the society.

Dr. Augustus O. Timetaker read an essay on "Micrococci; What Are They?" It was a profound exposition of a weighty subject. He thought they were produced by spontaneous combustion of the tooth

structure. He had seen them through his microscope as large as English walnuts, and of a fierce blood-thirsty nature. They possessed a long, silky covering resembling hair and were noted for their rapacious disposition. Dr. Foolish asked if micrococci meant microbes with cocked eyes. If so, whether the eyes cocked in the same direction or differently. Dr. Practical interrupted merely to suggest that it might be a good thing if a small portion of the time of the convention be taken up with useful information but he was quickly frowned down, and the convention here resolved itself into a mutual admiration society. It seemed much more important to put each other on stilts than to come down to the plodding of every-day practice.

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### "A VISIT TO FOREIGN DENTAL SCHOOLS."

DR. W. E. DRISCOLL, MANATEE, FLA.

The paper with this title from A. W. Harlan, M. D., D. D. S., in the Items for October, 1886, is in the nature of cumulative evidence of a state of affairs to be deplored. It shows that in England they require a candidate for graduation in dentistry to devote four years to the study of about everything but *Dentistry*, and that, too, after having first passed a preliminary examination in all the branches of good English education, besides Latin and some one other language, which may be Greek, French, German, or Italian. But after all these years of skirmishing among the outworks of dentistry, after the student receives his degree in *dentistry*, he has to go elsewhere to learn practical dentistry. He has skill neither in the use of cohesive gold, nor in the construction of artificial sets of teeth. For the work of the office he is unprepared. At best, he has but a theory of either operative or prosthetic dentistry. The idea, *study most what you are to practice*, seems to be largely ignored. These foreign schools seem rather to teach everything except that which the student is to practice. One would suppose a student educated on this plan is to look with contempt on the drudgery of making *practical* sets of artificial teeth and filling teeth, as they only can be filled with cohesive gold. Is it possible this is the outcome of such a system of educating "dentists"? What does a patient care how much a man knows about General Medicine and Surgery, Chemistry, Dynamics, &c., if he wants a serviceable set of teeth or a good gold filling? All this knowledge with the operator is nothing if he has no experience. He would look for the practical man, though he had not spent four years studying something else. Let us learn all we can from foreigners, and especially to avoid their absurdities.

Manatee, Fla.

W. E. DRISCOLL.

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To every person there is no time like the *present*.



## INSOMNIA.

DR. H. H. WAY, ST. THOMAS, ONT.

On retiring for the night we are apt to carry our business with us, or we have some pet theory to further develop; it is wrong to permit any subject to take possession of us at such a time. Yet the surroundings are most favorable for mental activity. It becomes easy to think; it is a real pleasure. It is only to begin a train of ideas, or to find ourselves urged on as if by some unseen stimulus. There is an unaccountable vigor with our mental powers, not often present through the day. By and by we begin to realize that this ought not to be encouraged: so we desire sleep, but sleep is farthest from us. What is the remedy?

I have often risen and taken a bit of plain food, then fixt my attention on some other subject, and always with good results. But this remedy I feel is not a proper one; it is only directing the determination of blood from one set of organs to another: the whole body wants quiet rest.

Thus far my best means of relief is to absolutely pin my mind down to some single trivial object, as a view of running water, or counting a half dozen figures, over and over till all is forgotten.

## CALL A HALT, AND EXAMINE CRITICALLY.

T. H. PARRAMORE, D. D. S.

[Read before the Virginia Dental Association, August, 1886.]

The last twelve months do not seem to have been marked by that degree of activity in research and development that has characterized many of the past years of the history of dentistry. Doubtless it is well for us as a profession, and well for our patients, that this is the case. For I fear that, like the inhabitants of ancient Athens, we have been too anxious to hear or tell some new thing. Do not understand me as condemning that which is new in dentistry, or as recommending plodding on in the ruts our grandfathers made,—by no means,—but I do think it well to occasionally “call a halt,” to critically examine new methods, materials and instruments, and find wherein they are superior to those with which we are familiar, before adopting them.

Allow me to direct your attention to some of the inventions and discoveries that have marked an epoch in the history of dentistry.

How eagerly we rushed after cohesive gold and the rubber dam! How well we builded, but, alas, how often unwisely! How we hammered the gold into our patient's teeth, adding ounce after ounce to our mallets, and grain after grain to our gold leaf, till the former became sledge hammers, and the latter heavy sheets of metal. Yet this practice, with its resultant harvest of periodontitis, was founded on sound principles, and our only mistake was a failure to discriminate

between teeth that required and would bear such treatment, and those that did not. We now see our folly, have learned to *use* and *not abuse*, these useful adjuncts to our profession, and what dentist of to-day would be willing to give up the rubber dam, the mallet, or cohesive gold?

Next came the "Dental Engine": Gentlemen it would require a small fortune to purchase my engine if I could not get another. Yet the dental engine has worked, and I fear is still working, a great deal of mischief; many nerves are uncovered by its reckless and unskilful use. I fear the demonstrators of our colleges are to a great extent responsible for the abuse of this most useful machine. As a remedy I would recommend that no student be allowed to use an engine till he has learned to handle an excavator intelligently.

Since our profession has suffered in the past on account of this reckless rush after new things, a year devoted to the task of "proving all things" cannot be better used.

The present danger threatening our profession seems to me to be too much pivot, and too much bridge work. We are now making pivot teeth of great superiority in adaption, strength, comfort, and perfection of workmanship. In this perfection is the danger. I find myself constantly tempted to sacrifice shells that may be made useful, because a pivot-tooth can be more easily adjusted and looks so much better.

Bridge-work is the perfection of prosthetic dentistry. But just how far we can go in the use of bridge work before we cross the border-line of its abuse, is hard to decide. I have always condemned the practice of fastening a whole set of upper teeth to four roots as is sometimes done; the advocates of this method, however, claim great things for it, and those whom I have seen wearing teeth inserted by this method seem charmed with them, but I prefer to wait till its claims are more fully established.

In partial cases, under favorable circumstances, bridge-work has no equal: it is perfectly comfortable, easily cleaned, natural in appearance, and gives entire satisfaction to the wearers and their friends. The same danger that besets pivoting is lurking near this beautiful, tempting work.

The most encouraging feature of the past year's progress is the fact that "dental medicine" and the scientific treatment of pathological conditions is rapidly assuming the position its importance justifies. In our mad rush for protection of operative skill this branch has been sadly neglected, and the awaking to a realization of its importance should be hailed with joy by every member of our profession.—*So. Den. Jour.*

## MATRICES.

IN N. Y. ODONTOLOGICAL SOCIETY.

Dr. Perry.—I am a little shy of matrices in making gold fillings, as I like to know just what I am doing at the margins of my cavity, and that is not always possible when the view is obstructed by a matrix. I like to be able to drive the gold over the margins and “nip” it off with the instrument, for then I know I have made a tight fit. Along the cervical wall a matrix may be trusted, for there soft gold may be used and the point of the plugger comes squarely against the wall; but as the buccal and lingual borders does not strike squarely, I prefer to have my view of these margins unobstructed. I often make a compromise, therefore, and use along the cervical border a narrow matrix made from thin brass or phosphor-bronze, and held in place by the jaws of one of my separators. Sometimes I shape these matrices so that they reach above the cervical wall, and serve to hold the dam in place. These matrices leave about one-half or two-thirds of the margins free, and enable me to work rapidly and accurately. Sometimes I use them of full width, holding them in place in the same manner with the separator, and using the lead mallet to bulge the matrix and bring the filling to full contour. They certainly possess the advantage of leaving a filling so well shaped that but little finishing is necessary.

Dr. J. N. Crouse. I am always delighted when I can take the opposite side of a question. Since my arrival in New York I have visited a number of dental offices, and in all have seen about a peck of clamps, separators, matrices, and a variety of other things, all novelties to me. I have been quite interested to learn where they get all the material from which to make them, and find that they are made cheap, generally of home construction, and from such articles as old files, pieces of copper wire, rubber-dam, pine sticks, or any thing that the dentist has no further use for. With my method of operating, I have little use for anything to hold the gold while I am putting it in. calculate to place the gold properly and keep it there,—though, to be sure, it may not always stay. I just had a note from a patient of mine who is in New York temporarily, and who like myself always steers clear of strangers, asking me to come to see her, for a filling had come out of one of her teeth. So, fearing some one of you might have heard of it, I make this acknowledgment, that some gold fillings don't always stay. The question in my mind is whether they stay better or worse for having used these contrivances. I don't like to differ with my friend Brophy, especially as he particularly requested that I should back up his paper when I got here, and I promised to do it; still I have to discuss this subject on its merits, and I cannot commend the use of what I consider useless.

I must say, the dental profession of New York seems to be going plum crazy on this subject of matrices. I cannot see any advantage in the use of the matrix. To be sure, you do not have as much overlapping gold to dress off at the margin, but is there not danger that you will have too little, and consequently be unable to get a perfect joint? I am not so ignorant about the use of the matrix after all, for I have tried it, and that is why I am like my friend Perry, who said he was very shy of it. Of course, there are improvements in these things, and the improved ones are the most likely to cause failures. I expect it will be with the matrix as with many other inventions; a lot of poor fillings will be made by those who use it, and the fellows who abandon it first will be the smartest—unless I except the fellow who don't use it at all. I am not sure but the nearer perfect you get your matrices to adapt themselves to the walls of the cavities the more likely you are to have failures in your fillings. When you come to dress off the gold at the margin of the cavity which the plugger did not perfectly condense, but which the matrix held while you were putting in the filling, I think you will be disappointed, and wish you had relied more on your skill and less on the matrix. I may be crazy, but it seems to me that the matrix men are more so in running this business so far. It may be a very good thing, if you can get it on and off in an hour or so, to give shape to a gutta-percha filling. I want to say that I stick pretty close to a tried method,—a method which if properly followed gives a good gold filling, nicely shaped and with good margins and contact. If there is anything in New York better than that, I am going to stay here till I get it. Of course, it will not stand hydrochloric acid. But physicians can easily administer hydrochloric acid, if they must, without having it come in contact with the teeth. Our physicians are educated, and have their patients take it through a glass tube. I have taken hydrochloric acid with great advantage, and I don't think my teeth have suffered any of the evil effects that have been spoken of by my friend Clowes. If all the evil comes from the administration of hydrochloric acid, or tincture of iron, or muriatic acid,—and they all come under one head,—it certainly ought to be easily remedied. It is not necessary for this great Odontological Society to be meeting month after month to find a remedy for that trouble. Turn it into a missionary society, and go from office to office and teach the medical practitioners how to administer these medicines.

Dr. Brophy. In regard to the criticisms made by Dr. Perry, as to the difficulty of adjusting the filling material to the margins of the cavity, I would say that when this matrix is in position the walls of the tooth are so exposed to view that the gold can be carried over and laid on to the cervical margin and condensed there with as much certainty

as it could be done with the matrix off. It is not so with a matrix that is wedged in between the teeth. If you wedge something against the edges of the cavity, of course you cannot introduce the gold as easily and with the same perfection that is possible when the margins are free and visible. Along these walls the gold always laps over to some extent, and by this method you have much less excess to finish off. It will be carried beyond even the normal contour of the tooth; and in some cases it is better when carried beyond that normal contour. The band is constructed to fit the neck of the tooth, and is narrower, of course, at the neck than it is at the masticating surface. I do not think there are many more afraid of matrices than I was after my first experience of a few months, and I have constructed mine so that I can see the margins of the cavity and know where my gold is placed. I promised Dr. Crouse one of these instruments, but owing to the difficulty of getting them made I was unable to keep that promise. He said he wished to try one, that he might explain to the gentlemen of this society what success he had had. Dr. Crouse says the great number of clamps, matrices, separators, etc., exhibited and used by New York dentists have made him sick. Gentlemen: a man is always sick when he is at sea.—*Cosmos*.

#### PHYSICIANS EXTRACTING TEETH.

A physician writing on Mistakes in Practice, among other things says:—I never received any training in the extraction of teeth, and when a student in the office of my protector, I made a total failure at one time in trying to extract a tooth. That should have been a sufficient lesson to me, but it wasn't. I occasionally receive a call to extract a tooth. I do not own a pair of tooth forceps, and always send such calls to a dentist. One rainy night, about three years ago, I was prevailed upon to visit a lady for the purpose of extracting a tooth. I was told that the friends had a pair of forceps. The truth is, I haven't confidence enough in myself to extract a tooth. I failed, of course. I then furnished my horse and carriage, gratis, for the friends to take her to a dentist. Every failure, however small, cannot help but tarnish a man's professional reputation. I have not attempted to extract a tooth since, and when I do, "it will be a cold day." It is true that country practitioners must extract teeth, and I believe that that branch of *minor surgery* should be taught, practically, in our medical colleges as much as any part of the student's equipment for his future duties. A little actual practice, under the guidance of an experienced operator, would go a good ways in establishing a professional reputation.

The eye and ear are particularly susceptible to troubles originating in the teeth, which the skilful dentist only is able to relieve.

## PULPLESS TEETH.

CHARLES F. IVES, M. D. S., NEW YORK.

If pulpless teeth are brought to a healthy condition, and their roots well filled, trouble seldom supervenes. What proportion of pulpless teeth are conscientiously and intelligently treated and filled by the dentist? Of how many of these teeth coming to him for treatment can he say, after finishing his work, I have done my best regardless of time or remuneration? This is the serious side of the subject for us. To illustrate:

A gentleman on his way to have a first superior molar extracted, suddenly thought better of it, and came to me for temporary relief, which I afforded him. He volunteered the following statement: Four years before, he put himself in the hands of a dentist in New York, who found in this tooth an exposed pulp which he destroyed in the usual way. The tooth had a large gold filling in its crown, but the application for destroying the pulp, and the subsequent treatment was made through a cavity in the posterior proximal surface. The dead pulp was removed from its chamber, and attempts made to enter the root canals. The palatal root offered but little difficulty, the buccal roots proved more difficult. After many vain attempts, the dentist assured him they were entirely closed with a deposit of secondary dentine. The palatal root was dressed, and a temporary stopping inserted. From this time on the tooth was troublesome, a continuous nagging uneasiness was present which no applications relieved. Some time after this, the patient passed into hands of another dentist, who drilled through the crown filling, thus obtaining more direct access to the roots. Treatment was resumed with little improvement, and the tooth finally filled with gutta percha, with the advice to have it extracted if it proved troublesome. This was its history when he came into my hands. I removed the entire filling in the crown, enlarged the opening till I had perfectly free access to all of the roots. I found the entrance to both buccal roots, enlarged them, and followed them up till their extreme minuteness and entire freedom from odor convinced me that there would be no further trouble from them. The palatal root was in a bad condition and undoubtedly the seat of the whole trouble, as the end of it had never been reached. It was stubborn, and carbolic acid or iodoform left in it for a few days would thoroughly lose its identity. I therefore went through the foramen with a drill made from a Donaldson bristle. A call for pus was made with the peroxid of hydrogen, and promptly responded to; from that time on it has continued to improve, and will, I trust, soon be in condition to fill permanently. Well, what of it? Simply this: Do you not honestly believe that if the dentist who destroyed the pulp in that tooth

had removed the crown filling, obtained free access to the roots, given them such treatment as was necessary and filled them, it would probably never have given trouble? Can we look for success to follow the endeavor to reach the anterior buccal root of an upper molar through a posterior proximal cavity, or to do effectual service in any of them?

It is just such kind of imperfect operations as this that send many patients to the physicians with suspected neuralgias and other neuroses. It is the results of just such operations that are occasionally reported in the medical journals, with an editorial fling at the end to the effect that "Dentists should remember that the treatment of diseased tissues requires a medical education." I have seen during the past winter enough of careless, unprincipled work performed on this class of teeth, by men who claim to stand high in the profession, to warrant wholesale denunciation. The time is coming when the cry of mal-practice will mean business to those who are unwilling to spend the time necessary on diseased teeth, because it does not bring them the same remuneration as ordinary operations.

It needs much patience, good temper, and persistent determination to successively treat a refractory pulpless tooth. No operation draws more heavily on the nervous system, for it often discourages while it wearies, and it is at such times that the tempter draws near, and one needs all his strength to say "get thee behind me." If we are unwilling to give our best efforts in this special line of work,—if we believe that it does not pay to devote the time necessary for the best results,—then let us believe the physicians are right, and that extraction is the best thing, and not pity their ignorance. If on the other hand we strive with all honesty of purpose to do our best, we shall be successful; and not only enjoy the consciousness of a duty well done, but be able to convince our medical friends that pulpless teeth can be made quiet and respectable members of oral society though slightly crippled.

In a practice of twenty-five years I have had occasion to remove many root fillings, and retreat and re-fill. Whenever I have had the privilege of obtaining an extracted tooth with the roots filled, I have sat down with keen delight to a careful dissection of it, hoping to profit from the success or failure of the operator. I have never yet, in the root of a tooth, in or out of the mouth, found a filling of gutta-percha, metal of any kind, wood or paste, that did not on removal give out vile odor. That it is possible to fill a larger proportion of roots more perfectly—so far as adaptation is concerned—with a solution of gutta-percha in chloroform than with any other material, I am inclined to believe; but that it can be made impervious to emanations from the tubes or through the foramen, I do *not* believe. The fact

that those who use it and claim that they never have any trouble, is no proof to the contrary. I had occasion some time ago to re-fill the crowns of two upper bicuspid, the roots of which had been filled with cotton and creosote thirteen years. They had never given the slightest trouble, but my curiosity getting the better of me I removed the fillings. To the very end it was sweet and redolent of the antiseptic. I therefore concluded that cotton and creosote could be *made* to answer a good purpose, and in this case back it went. In my hands nothing has been so uniformly successful as a slow setting oxy-chloride of zinc, mixt to a moderate degree of stiffness with a few fibres of cotton to make it carry well; first closing the foramen with cotton moistened with carbolic acid, or if the opening is large, with tin foil. With this, a root can be thoroughly filled and made aseptic to any secretions. I have no sympathy with that mode of practice which goes on the principle that all root fillings should be tentative in their character, and therefore filling them in a manner and with a material to be easily removed, or providing a vent-hole to anticipate trouble. I would far rather bend all my energy to get the roots in a healthy condition, and when my judgment assured me they were so, fill them as I would a cavity, to the best of my ability and never stop to think that they would do otherwise than well.—*N. Y. Trans.*

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### PREPARATION OF CAVITIES.

DR. D. L. OVERHOLTZER, LOGANSPORT, IND.

In hard teeth with slight decay, confined to black fissures running in different directions, unless well managed, the preparation of the cavity may prove quite a task. In many I find a rather small, hard, square drill on the engine applied at different points, very efficient in preparing the way for the application of gouge chisels, inverted cone burs, triangular drills, and corundum points, by means of which the removal of decay and proper shaping for the retention may be speedily completed, after which you have only to smooth and bevel the edges. This can usually be best done with a properly shaped corundum point on the engine. Cavities in the same situations where decay is more extensive, are generally most conveniently opened with gouges and shouldered chisels. In lower teeth, gouges with the points bent at right angles, so that the shaft stops the stroke, are almost indispensable in breaking down the overhanging enamel. For the removal of soft decay, after the cavity has been fairly opened, I find specially useful spoon-shaped excavators with different curved handles. In deep decay my practice is in accordance with the now generally accepted theory, that the natural covering of the pulp, even if that is partly decomposed



dentine, is better than any artificial covering; hence, if I can get a solid border of dentine round the inside of the cavity without uncovering the pulp, I never uncover it.\*

In proximal cavities in molars and bi-cuspid, the first step usually is to open the cavity through the grinding surface. Sometimes a square or triangular engine drill is used, but more frequently a gouge chisel is best; this is followed by different shaped excavators, burs, square or triangular drills, or corundum points, till the cavity is properly cleansed and shaped, which frequently includes a dovetail in the grinding border of the cavity. Where much solid tooth substance is to be cut away, square and triangular engine drills and corundum points, next to gouges and chisels, are my chief reliance.

After a cavity has been thus far prepared, there is usually but a small surface of contact with the adjoining tooth. The space needed for finishing the filling is usually made by running a thin flat file, or diamond or rubber corundum disk between. If, as is common, another cavity exists immediately opposite in the adjoining tooth, access may frequently be had to the latter through the cavity already prepared, and the grinding wall need not be broken in if there is sufficient strength to warrant leaving it. Excavators of different forms and sizes will enable the operator to properly cleanse and shape the cavity. In buccal and labial cavities, where there is considerable decay, and specially if there is projecting enamel, the gouge chisel again comes first, to be followed by excavators and different forms of engine drills. In cavities where it is impossible to get a direct action of the engine at desired points, the right angle attachment comes in charmingly. This is true, not only in this class of cavities, but often on the grinding and posterior surfaces, where the adjoining teeth are gone. So useful have I found this attachment that I consider the help I get from it the best I get from the engine; I should think my engine very incomplete without it.

In the last two classes of cavities, occasionally the cavity is filled with the gum, or a very vascular growth from the gum or pulp, which on the slightest touch bleeds profusely. Remove this with suitably shaped lancet or excavator, followed by an application of chlorid of zinc on cotton. Where the growth has been of considerable extent, it is often necessary to defer further proceedings to a later sitting, in which case the clearing of the cavity may be facilitated by the introduction of cotton saturated with sandarac varnish, pressed so as to keep away the offending tissue. Should there be a tendency to bleed at a later sitting, it may usually be checked by another touch of the chlorid of zinc.

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\* But this should be made aseptic before making a permanent filling over it; often simply partly filling the cavity with oxyphosphate is sufficient.—ED. ITEMS.

#### ITEMS OF INTEREST.

In proximal cavities in incisors and cuspids, where the teeth are close and decay not very extensive, the first step is to get space to operate. Though violently denounced in one of our late meetings, I still believe slow wedging decidedly the best plan for procuring the space indispensable for successful filling. For wedges I find rubber the most convenient and satisfactory. Where the teeth are very close I begin with a strip of cofferdam rubber, which is followed with strips of gradually increasing thickness. In this way, in from two to four days, according to the situation, I can get satisfactory space with little inconvenience or pain to the patient. By giving the patient the needed variety of rubber strips, and showing him how to introduce them, he can generally do this himself, or have it done by his friends. The great pain and injury which we are sometimes told come from the use of rubber wedges, come rather from their misuse.\* The rubber can be had from the stationers in the form of bands. Occasionally a patient who has been equipped for the rubber process, will return at the time appointed for filling, who, for some cause, has failed to apply the rubbers as directed. I postpone the operation till this essential is met, though it may put both patient and myself to inconvenience. I have a distinct recollection of a case in which, failing to follow this rule, I worried through the operation of inserting two fillings, which afterward proved failures, and which I have reason to believe cost me many times the amount I received for the fillings. Where the decay is extensive and the proximal edges are thin and ragged almost or quite to the cutting edge, the wedges may be dispensed with and the separation made and cavities opened by means of files and chisels. Thin edges are to be cut away and made smooth, and decay removed chiefly with differently shaped excavators on the same principles as in other situations. A little undercutting is to be done whenever there is tooth substance enough to admit of it; generally a little of this can be done at least toward the cervical and cutting edge borders of the cavity. In most cavities I think retaining pits are both unnecessary and undesirable. Everything else having been done, the preparation of the cavity is completed by smoothing the edges with rather fine emery strips. This is not to be considered unimportant, as it is impossible to put a smooth finish on the filling if the edges of the cavity have not previously been made smooth. Strictly speaking, perhaps, the preparation of the cavity should not be considered complete till touched with carbolic acid or oil of cloves, perhaps still better with equal parts of each. This is theoretically important, and I usually practice it. This mixture will be found better than carbolic acid alone for most purposes.—*Indiana Trans.*

\* Keeping a pine wedge, notched so as to fit nicely, between the teeth for a day or two after the rubber has separated the teeth, removes all soreness and looseness.—ED. ITEMS.

## NITROUS OXIDE.

DR. F. H. HAYES, DOVER, N. H.

Recently it was proven, after many experiments, that the greatest danger after narcosis and during recovery therefrom, resulted from congestion, which may go so far that the patient though safely narcotized, may die during recovery of consciousness. The heart loses its power of action later than the organs of respiration. Nitrous oxid gas is a substance as near to air in composition as any compound could be. That it is without the power of mischief is evident to anyone who has witnessed the cyanotic tint in persons under its influence. It will not support animal life. The animal dies asphyxiated.

Some authorities maintain that the blue color of the skin is caused by stagnation of the blood resulting from incipient retardation of the vibration of the heart caused by irritation of the pneumo-gastric nerves

The advantage of administering this gas is the rapidity of its action, the speedy passing off of its effects and the absence of sickness at the stomach, vomiting, headache, etc.

Whether nitrous oxid gas should be given before the administration of ether is not a question of safety or of speed. It is frequently given to highly excitable patients where assistance is necessary to restrain the patient from struggling. The gas after inhalation is absorbed into the blood, and carried to the heart, thence to the brain and extremities. The sense of sight fails, the power of motion lessened, consciousness dimmed, and at last hearing is lost.

In severe disease of the arterial system, this gas should not be given prior to the inhalation of ether; and with extreme caution to those affected with cancer, or who may be anemic. It should never be given to those emaciated by pulmonary phthisis. Artificial teeth should be removed.

When the narcosis is complete, the muscles are relaxed, the pupils of the eyes are dilated and insensible to the impression of light. Dilation of the pupils is a sign of the anesthetic having been pushed to a sufficient extent, and the inhaler should be immediately removed from the face. An over dose produces disturbance of the vital organs, showing itself by trembling of the body, spasmodic contraction of the muscles, strabismus convergens, profuse perspiration, dyspnea and failing pulse. If the narcosis be further prolonged the action of the lungs ceases, and finally also the vibration of the heart. Flaccidity of the limbs is no sign of cutaneous insensibility.

**Women Graduates in Dentistry.**—The Pennsylvania College of Dental Surgery has graduated six ladies. Three are from Germany, one from Pennsylvania, one from New York, and one from the West Indies.

## DR. YOUNGER'S PROCESS.

(How a Woman Bore the Operation.)

*From the St. Louis Globe-Democrat.*

Dr. Younger arrived in the city yesterday from Philadelphia. He has been east for some weeks, performing the operation which has made him famous among dentists of the United States. He has superintended clinics at several large dental schools, and has been lionized by the profession wherever he has been. He is now on his way back to San Francisco, for which point he will start to-morrow evening.

Yesterday afternoon Dr. Younger performed his operation of transplantation and implantation, as he calls his new operation, in the rooms of Dr. McKellops. Dr. W. H. Eames, Professor of Dental Surgery at the Missouri Dental School, and Dr. Newby were present, and the dentists observed and questioned Dr. Younger with the greatest interest. The patient was Mrs. Kate Cannon, a seamstress. Her upper left lateral incisor tooth had been extracted two and a half years before, and it was the replacing of this cutter which Dr. Younger undertook. The operation was a painful one, but Mrs. Cannon bore it without a quiver or a word of complaint, refusing to submit to the administration of an anesthetic or the local application of cocaine.

The dentist first made complete preparations for the work before him. Opening a small velvet lined case which he brought with him, he exhibited to view a large collection of human teeth of all sizes and kinds, from the small incisor to the bulky molar. There were perhaps 500, some having been extracted several years and others but a few weeks or months. But they were all in precisely the same condition as when drawn. They had not been cleaned or scraped, and it was observed that the thin membrane on their roots were especially untouched and intact. Turning these teeth out on a table the doctor began a search for incisors which had grown on the left side of the upper jaws of their original owners. Selecting several of these, he lifted the patient's upper lip and "tried them on," placing them in position against the gum over the vacant space which one of them was eventually to occupy. Of some the roots were too long, of others too short; some were too broad, others too narrow; some too thick, or crooked or twisted. It required a very particular tooth to match those which were henceforth to be its neighbors and fellow-workers, but at last the exact thing was found. At the end of the root was a little hook-like turn. This was ground off. Then the pulp of the nerve down the centre of the shaft was thoroughly cleaned out. The nerve was dead long ago, of course and was represented only by a white powder-like substance. When this was taken out a strong disinfectant was introduced, which thoroughly destroyed any effect which any atom

remaining might have. Then the small cavity was carefully plugged with gutta-percha, rammed in with a needle-like steel rod, and topped over with a very diminutive wad of gold.

The tooth, thus prepared, was placed in a bath of a solution of one part of bichloride of mercury to 1,000 of water, heated to a temperature of 120° Fahr., and the doctor turned his attention to the patient, for the purpose of making a new socket. First he cut into the gum at the point where the former tooth had come through it, going in to the bone. The wound bled profusely, and he washed it carefully by means of a syringe. He then began boring up into the solid bone where the root of the stronger tooth was to be inserted. When he had made quite a hole he fitted the prepared tooth into it. It would not go in far enough and the boring was resumed. The tooth was tried in two or three times and when the socket was of the right depth and width the new member was firmly forced into position by means of a small stick prepared for the purpose, the gum covering the root. That was all, and the patient arose from the chair, looked into a hand-glass, and smiled a satisfied smile. The tooth, except for a slight chalky whiteness, which the others did not show, looked as if it had grown there. Dr. Younger was heartily congratulated and so was Mrs. Cannon. He said that the tooth would lose its somewhat unnatural whiteness within a day or two, and after that be as much a part of her as if she had reared it from the gum. Any cavity which may exist between the root of the tooth and the bone of the artificial socket will rapidly fill up with solid bone substance, and the new tooth will be nourished precisely as the old ones. Out of sixty operations of this kind which Dr. Younger has performed within the past six months, only two have been unsuccessful, and those failures were due to circumstances perfectly understood, and causing doubt in his mind at the time of the implantation.

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#### GOLD WITH TIN AS A FILLING.

IN N. Y. ODONTOLOGICAL SOCIETY.

Dr. Brophy.—The combination of gold and tin as a filling is not new. It is attracting interest in the best minds of our profession. Tin has long been regarded as a valuable material with which to fill teeth. The chief objection to it are discoloration and rapid wearing away on masticating surfaces in consequence of its softness. It is claimed that the salts of tin deposited on the interior of a tooth cavity are anti-septic, and therefore possess value as a prophylactic. Such may be the capability of the tin, but the assumption remains to be proven. I am of opinion that the efficiency of tin as a filling is caused by its softness and by its adaptation to the walls of the cavity, and therefore to its effectiveness in filling the cavity.

In a paper by Dr. W. D. Miller, of Berlin, published in the *Independent Practitioner* for August, 1884, something of the history of the use of combined gold and tin is given, in the clear and concise style characteristic of that well-known scientist. Dr. Miller asserts that gold and tin combined have been used about twenty years by Dr. F. P. Abbot, of Berlin, with satisfactory results. Dr. Miller says: "It has, however, been adopted by only a few, owing, no doubt, to a widespread superstition that the electricity attendant on such a filling will in some way injure the tooth." After discussing the question of electrical conditions, he adds: "We may say, therefore, that neither experimentally, theoretically, nor practically can there be any electrical action of a tin and gold filling on the tooth."

Gold and tin are prepared by placing one-fourth or more of a sheet of number four non-cohesive gold foil on the same sized piece of number four tin-foil and twisting them into a loose rope, either the tin or the gold on the outside. Frequently as much of one metal as of the other is exposed to view. The advantages claimed for the combination of tin and gold are,—that it may be inserted rapidly and with a degree of ease scarcely equalled in the use of other materials; that the presence of slight moisture does not impair the working properties of the material, nor render the filling less permanent. A short time after a tin and gold filling has been inserted both metals lose their identity; the mass expands slightly and discolors,—sometimes becomes quite black, and is converted into a chrySTALLINE substance resembling amalgam. The discoloration is *certainly objectionable*, especially on the teeth in a position exposed to view. It cannot therefore be used in the anterior teeth.

Dr. Miller's concluding paragraph is as follows:

"Gold and tin used in the manner first advocated by Dr. Abbot, of Berlin, owes its virtues to the ease and rapidity with which it may be inserted; to its marked adaptability; to its freedom from injury by moisture, and to its slight expansion after insertion, to any supposed electrical action on the tooth itself."

My limited experience with combined gold and tin will not permit me to speak of its merits as a permanent filling material with that enthusiasm and authority which mark the article from Dr. Miller, but I am convinced that by filling large proximal cavities with it we may greatly lessen our labor and relieve our patients of the tedium of protracted operations.

Dr. C. R. Butler. The folding of tin with gold foil I regard as a bad practice. The result of my use of it somewhat after the manner of Dr. Palmer, of Syracuse, has not been satisfactory. The tin seems to disintegrate, leaving the gold standing, and gives a rugged looking

surface. I use tin or textile metal along the basal boarder of a cavity, but without any gold mixt with it, making a square division or section of tin and then adding gold. I think, that with careful manipulation you will find better results following that method than you will get by mixing the tin and gold.

Dr. S. B. Palmer. With reference to the remarks of Dr. Butler, on the combination of gold and tin, I will say that it is not my present practice to use it as described by him. Experience has taught me that when the two metals are systematically combined a chemical process similar to slow fusion takes place, by which an alloy is formed, unlike either metal, and nearly as hard as amalgam. I have obtained the best results by using No. 4 gold and No 3 tin, one leaf laid on the other in alternate layers to make the thickness required, then cutting into ribbons the width most convenient. This distributes the gold and tin evenly. In rolling two or more sheets into the rope form, several thicknesses of tin are liable to come in contact, in which case the tin, instead of forming an alloy, will be eroded by galvanic action, and thus present the uneven surface mentioned by Dr. Butler. Whether I use gold and tin for lining cavities or for entire fillings, the same proportions are observed. By the use of cylinders made by rolling ribbons cut from the foil, as already described, at least one-half of the amalgam now used could be dispensed with. Instead of the silver-plated copper matrix referred to by Prof. Andrews, I use pure silver, which when annealed becomes very pliable, though I generally prefer to pass it through the rollers, and use it without annealing. It is bright in color, and answers the same purpose, without plating.

Dr. Brockway. Many of those who have spoken on the use of matrices in making gold fillings recognize the difficulty of making a perfect joint at the cervical wall of the cavity. I think that difficulty has beset every one who has used the matrix, and I wish to ask if it could not be overcome by the use of a thin layer of amalgam spread on that surface and filling on that with gold? Is there any valid objection to such a practice? I can see none. I have made many of such fillings, and they have proved satisfactory.

I have noticed the disintegrated condition of the tin and gold fillings which has been alluded to by Drs. Palmer and Butler. Some years ago I made several such fillings, but I subsequently found they failed at the cervical margin. Not knowing how to account for this, I simply abandoned the practice. Had I known then that the use of a simple *layer* of tin and gold, as suggested by Dr. Palmer, would have prevented that disastrous condition, I should have saved myself much mortification.—*Cosmos*.

## PROCEEDINGS OF PENNSYLVANIA SOCIETY.

(Continuation of Report.)

DR. WM. H. TRUEMAN,

Wednesday Morning, July 23, 1886.

A portion of the afternoon session was devoted to clinics, and to the examination of new instruments and appliances.

Dr. Hamlin Barnes demonstrated the use of his prepared gold for lining vulcanite plates. He urged, where the lining is used, the importance of having to vulcanize on a cast with a surface smooth and free from air bubbles. To obtain this he preferred to prepare the impression by giving it several coats of thin sandrach varnish. If the impression is made in modeling compound the varnishing must be done quickly or the alcohol may soften the surface. He prepares the plaster for casting the impression by first placing sufficient water in a bowl, into this the plaster is sifted a little at a time, allowing it to settle after each addition. To take up the dry plaster, he used a dipper, the bottom of which is made of fine wire gauze; this is held over the bowl, and the plaster caused to fall through by gently jarring it. Sufficient plaster having been added, it is allowed to settle, the surplus water poured off, and the thin batter poured into the impression till the face of it is covered. This is jarred to cause it to flow into the depressions, and after it has slightly hardened a thicker batter is added to make the cast of sufficient thickness. He used a slow setting plaster, necessarily, as by this method considerable time is required. The surface of the cast made at the clinic was remarkably smooth and free from air bubbles, but when examined the next day was too soft for practical use in the laboratory; evidently too much time has been consumed in mixing the plaster, or the batter was too thin to produce a hard, serviceable cast. This might be due, however, to interruptions incident to a clinical demonstration.

The case is flaked and packed in the usual way; to prevent the rubber adhering to the cast, it is covered with an alloy of lead and cadmium rolled to about No. 40, and to facilitate opening the flask during the process of packing, a piece of thin muslin is placed between the rubber and the cast. This is removed before the flask is finally closed. After the flask is closed, and when ordinarily it is ready to be placed in the vulcanizer, the muslin having been removed, but the lead foil still remaining in position, it is allowed to cool, preferable in the air, but if time is an object by immersing in cold water. When quite cold the flask is opened, the lead foil stripped off, any surplus rubber cut off with a pair of scissors, and the prepared gold applied either to the surface of the rubber or to the cast. In either case it is cut into pieces of suitable size and shape to neatly fit, allowing the



edges to barely lap; if they lap much the edges are liable to rise after the case has been worn, and thus form a rough line; the gold is "patted" into close contact with the rubber, and after the surface is entirely covered the flask is closed and the case vulcanized. As the gold is a trifle thinner than the lead foil, it is better to not quite close the flask till the gold is placed in position. Particular stress was laid on allowing the flask and its contents to cool before opening to insert the gold. If the flask is opened immediately there is a tendency in the rubber to draw away from the mold; from this cause, when the flask is again closed, the position of the gold is liable to be changed, the joints between the pieces may be opened, it may be thrown in folds or even torn over depressions. This the doctor illustrated. He suggested it would be better where tin foil was used simply to give a clean, smooth surface to the palatal portion of the plate to adopt the same plan, and defer placing the tin foil in place till the flask had cooled. Care is of course needed to avoid injury to the cast if any portions are weak.

The Partz Electric Battery Company of Philadelphia, exhibited a new form of battery, known as the "Acid Gravity Battery," specially designed for office use. Constructively it resembles closely the well known "Gravity Battery." Each cell is composed of an oblong glass vessel,  $7\frac{1}{2}$  inches long,  $5\frac{1}{2}$  wide, and  $7\frac{1}{2}$  high. A carbon plate, the upper surface of which is covered with cone-shaped projections, so as to present a more extended surface, fits the bottom of the cell. Into the middle of one end of this is fitted, by grinding, a carbon rod extending above the top of the cell and forming one pole of the battery. About two inches above this is suspended horizontally a cast zinc plate; a glass tube, funnel-shaped, extends above the top of the cell, the narrow end, through which there is a small hole, resting on the carbon plate at the end opposite to the carbon rod. The cell is closed by a wooden cover, the carbon rod, an extension of the zinc plate, and the glass tube, passing through suitable openings and projecting above it. The battery is charged with a solution of either an alkaline sulphate, preferably that of magnesia (one pound to two quarts of water), or an alkaline chloride, preferably that of ammonium (one pound to five pints of water), each cell requiring about forty-five fluid ounces. The solution of sulphate of magnesia, while not giving as strong a current as the other salts, is preferred on account of its cheapness and cleanliness. After the cell is charged, a small quantity of a salt produced by causing sulphuric and chromic acid to combine, forming an amorpho-crystalline mass, known as "sulpho-chromic salt," made and furnished by the company, is dropt into the glass tube. In a short time this is dissolved, the resulting solution having a much greater specific

gravity than the solution filling the cell, spreads over and covers the carbon plate; the battery then becomes active, and continues so as long as any of this remains. When the battery becomes weak it is only necessary to add a fresh portion of the salt, dropping it into the glass tube. Four cells operate the electric mallet effectively. The advantages claimed for the battery are its cleanliness, entire absence of any fumes, the non-corrosive character of the solution used, and the ease with which it is kept in working order. The cells do not require cleansing oftener than once in two or three months, the addition of a small portion of the sulpho-chromic salt once a week being sufficient to keep it in order. There is an entire absence of the "chrome alum" deposit so annoying with the ordinary carbon or Bunsen battery. Dr. Guilford reported that he had been using four cells to operate an electric mallet, his door bell, an electric gas-lighting apparatus, for some nine months; during that time the solution had been changed but once. The only attention it had received was the addition of the sulpho salt from time to time.

#### AFTERNOON SESSION.

Dr. C. S. Beck, in relating various incidents of practice, expressed the opinion that a large portion of capped pulps, where there had been actual exposure, especially if that exposure was caused directly by decay, would eventually die. Whenever possible he preferred not to expose a pulp; the softened dentine makes by far the best cap. He had been very much interested and impressed by the recent investigations of Drs. Miller, Black, and others, on the germ theory and its bearing on dental caries, and also the part assigned to micro-organisms in causing and maintaining pathological conditions. This had led him to abandon all escharotics in these cases, and to use quite freely bi-chlorid of mercury in solutions of various strength, from one that is almost saturated to one of about one grain to the ounce. He used this in various suppurative conditions, and applied it freely to cavities; where to avoid pulp exposure he allowed more or less softened dentine to remain. He used a rather strong solution, as he desired to destroy not only any germs that may be present, but to thoroughly sterilize the parts, so that they could not in the future become the home of these destructive germs.

Dr. Guilford called attention to the strength of the solution of bi-chlorid of mercury recommended. He thought it entirely too strong to be safely used. One part in ten thousand of water was an effective germicide. Then why use it so strong as one part in five hundred? It is a most violent poison, and should be used with the greatest care.

Dr. Jack was more hopeful of the result of pulp capping. He

had found deposits of secondary dentine in a notable number of cases, and under a variety of methods of treatment. Accidental exposures were far more amendable to treatment. He had treated some cases of quite extensive exposure that had given no trouble. In considering this question we should distinguish cases of mere exposure from cases of diseased pulps. In the latter failure was far more frequent. We there labor under a serious difficulty in not knowing the condition of the pulp, or how far the pathological changes may have advanced.

Dr. Klump, in all cases where the exposure was the direct result of caries, preferred to thoroughly expose the pulp. He thought it advantageous to do so for the reason that in some cases where he had least expected it, after fully exposing, he had found the pulp almost putrescent. Where vitality still remains, if the softened dentine is entirely removed and the pulp fully exposed and carbolized, it will prove successful nine cases out of ten.

Dr. Guilford. A pulp will not allow of any great mechanical or any great medicinal injury. We should be careful not to apply too strong a remedy. It will not tolerate any space between itself and the capping. Should any exist, it will spread out and strangulate the capillaries on the rough edges. A cap should be close fitting, non-irritating, and thoroughly protective. He thought Dr. Klump's idea a great mistake; nature's cap is by far the best. Softened dentine, sterilized, makes the best cap.—CONCLUDED IN FEB. ITEMS.

### REFLEX PAIN.

PROFESSOR LADMORE, D.D.S., L.D.S.I., ENGLAND.

Mr. F. came to consult me on July 6th, regarding a first right upper molar, which he informed me another dentist had failed to extract after three attempts. He had been in agony for eight days and was unable to obtain sleep. He came with the intention of having the tooth extracted; but before doing so I made an examination, and though I found two small cavities, I at once said I did not believe that tooth was the cause of the mischief and I must look further for something more definite. He seemed to think this useless as he was certain the pain was in that tooth. I then looked at his lower teeth and discovered that the first and second molars on the same side were both badly decayed: the former having the pulp exposed and evidently in a high state of inflammation. I then expressed an opinion that this was the offender and not the upper tooth. After applying an arsenic dressing I requested him to call again, which he did two days later and informed me he had experienced no pain after leaving the operating chair. Since then I have filled the tooth—and the result is a complete cure. The patient was surprised at the success and said he was glad the other dentist was unable to extract the upper tooth.

*British Journal Dental Science.*

## COMBINATION WORK.

DR. L. P. HASKELL, CHICAGO.

There seems to be some discussion as to who first combined Continuous Gum and Rubber.

In the *People's Dental Journal*, October, 1863, is an article entitled "Patented Combination Works," in which it is stated that Dr. John C. Fuller, of Chicago, had recently taken out a patent for this combination. At that time Dr. Allport and the writer took pains to ascertain how long the work had been made before this patent. Replies were received from the following dentists: Drs. Taft, John Allen, W. B. Roberts, C. W. Spaulding, B. W. Franklin, J. Smith Dodge, D. S. Goldey, G. V. N. Relyea, Canada, E. F. Wilson, who variously stated they had made it two to six years previously, and had discarded it as not advisable to put into the mouth, being troublesome to make and difficult to repair.

Dr. Goldey said it was "like the devil's tail, painted blue, more ornamental than useful."

So it will be seen that the work was made at least 28 years ago, and by many dentists. Yet a few years ago it came to the front in England under the name of "Continuous Gum Facings" for the purpose of introducing Verrier's Gas Furnace. Later it made its appearance again in one of our Western cities as something new.

It was at the outset, and is now, undesirable, for to repair even a single tooth, it must be taken to pieces, the Continuous Gum part repaired, and then a new rubber plate made.

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**In Filling Proximal Cavities**, should the teeth be wedged previous to filling, or cut apart and permanent separations made? Which plan will be likely to result in the most good, both as to durability and comfort to patient? I should say as a general rule it is best to wedge the teeth rather than cut spaces, and yet many times the latter seems the best plan to adopt. I consider this one of the most difficult questions to decide in dental practice, and one requiring much thought and good judgment. The shape of the teeth, the way they antagonize, the tendency for caries to recur, the character and shape of the gums, the age of the patient, and care taken of the teeth, must all be taken into account. As a general rule, teeth that are wide at the grinding surfaces and small at the necks should not be cut apart, because the wide space at the gums interferes with mastication. If the gums and alveolus are heavy, there is apt to be a pocket formed, which adds greatly to the chance of caries recurring, besides giving discomfort to the patient in chewing, if permanent spaces are made through to the gums.

If the occlusion is such that when spaces are cut the teeth will soon crowd together again, cutting apart is generally bad practice; or if the patient is quite young, so that the teeth scarcely occupy their natural positions, cutting apart is hardly justifiable. On the other hand, where there is much tendency to caries with a lack of care on the part of the patient, contouring is not good practice, because the time and exhaustive labor required for such operations are almost sure to be rewarded by a quick recurrence of caries. Permanent separating is then almost the only thing left. So that no special rule can be given, but each case must be left to the careful study and good judgment of the operator. Cleanliness is also very important. Till we get patients to doing their part in taking proper care of the teeth, it is of but little use to try to make permanent operations. This is especially true with regard to children. I have repeatedly sent children home and set another time for them to come on purpose to examine and show them where they fail in this particular. It is said that the pulp-capping practice has changed. I have seen no reason for changing my practice in this particular. I cap pulps quite as frequently as I ever did, have quite as much faith in it, and believe any practitioner who does not cap pulps falls far short of his duty.—*Dr. J. N. Crouse, Chicago.*

### ALCOHOLIC LIQUORS.

#### IN TENNESSEE MEDICAL SOCIETY.

WHEREAS, The use of alcoholic liquors as a beverage, and the frequent indiscriminate prescription of them by the medical profession, leads to very great harm to the physical constitution, the mental and moral worth of the Commonwealth, and to unspeakable injury to the happiness of our common community; therefore, be it

*Resolved by the Tennessee State Medical Society,* That we adopt the following extract of a paper from the Transactions of the International Medical Congress at Philadelphia, read by Ezra M. Hunt, A.M., M.D., viz: "That if to-day no physician would advise any patient to the use of alcoholic drink, but would restrict it within the close limits of his particular prescription, the limitation would be in harmony with the present demands of therapeutic knowledge. It is not merely that the morals of society would get a glorious health lift, but the act would knock away the false prop which now upholds so many in the use of alcohol and relieve us of being accessory to the perverted habits of multitudes. If men and woman will call it food because they like it, they must cease to quote the medical profession as authority till there is proof that it has some ascertained value as such. If they wish to use it under the plea of medicine and make self-prescription for their

own gratification, they must not do it by our sanction. The facts as to food dismiss it as such. The facts as to medicine confine it within boundaries so narrow that we must, in fealty to real science and right practice, hold it closely within its limits. Wandering beyond these it must in no wise identify us with its vagaries. Because it finds a place in our therapeutics it behooves the medical profession to locate and define it; therefore, be it

*Resolved*, That alcohol is not shown to have a definite food value by any of the usual methods of chemical analysis or physical investigation; that its use as a medicine is chiefly that of a cordial stimulant, and often admits of substitution; that as a medicine it is not well fitted for self prescription by the laity, and the medical profession is not accountable for such administration or for the enormous evils arising therefrom; that the purity of alcoholic liquors is in general not as well assured as that of articles of medicine should be. The various mixtures when used as a medicine should have definite and known composition, and should not be interchanged promiscuously.

**Hydronaphthol.**—We desire to call the attention of our readers to this new antiseptic, as one destined to win a far higher place than most of the new compounds recently produced by the searches in organic chemistry.

It is non-corrosive, non-poisonous and inodorous. Its antiseptic power is far greater than that of carbolic acid. It is not decomposed by the products of putrefaction. It is not volatile at ordinary temperatures. The vapor is not harmful when inhaled. It will not injure colors or fabrics.

It is soluble in 1,000 times its weight in water; and this strength is sufficient to indefinitely preserve organic substances from decomposition; and yet has no injurious effect on living tissues.

It is freely soluble in alcohol, ether, chloroform, glycerin, benzole, and the fixed oils. Mixed with absorbent powders, like Fuller's earth, it can be dusted over wounds or dressings, like iodoform: a two per cent mixture being strong enough.

Any of the ordinary substances used in dressing wounds may be soaked in its alcoholic solution and dried: the crystals of hydronaphthol adhering to the tissue of the dressing. It will be found of value in preserving milk, and other articles of food in hot weather, or on sea voyages. Fruit, coated with a solution in oil, may long be preserved for the use of invalids. Many other uses will suggest themselves in dentistry as well as medicine and surgery, specially in ulcerations and piorrhœa alveolaris. Being non-poisonous, it will be also often useful as an internal remedy. Seabury and Johnson's importation is the most reliable.—*Med. World.*

## RESTORING A BICUSPID.

DR. A. H. HILZIM, JACKSON, MISS.

A left upper bicuspid, the bucal cusp was entirely gone, even up to the margin of the gum. Some one had endeavored to fill this tooth, and partially restored the contour with amalgam, which did not answer the description of the various "white alloys" now advertised, as it was quite *black* and unsightly. As it was "leaking" all around its edges, and very sensitive to "sweet things," I removed the filling.

The work of removal was done very carefully, as there was danger of breaking the remaining cusp, and this would have spoiled the operation I had in view. The great black lump of amalgam removed, I found, fortunately, the nerve not exposed.

You will say, why not contour the tooth with gold? But the patient objected to so much gold showing, almost as much as the amalgam, besides I suggested a better plan. I first undercut the remaining cusp as much as possible, and prepared the tooth throughout, as if for filling. I took a piece of pattern metal about one-sixteenth of an inch wide, and long enough to encircle the tooth; fitted it around nicely, removed it, and patterned from it a strip of gold, from a piece kept for such purposes, and having bent it to conform, as nearly as possible to the shape of the tooth, soldered it smoothly together.

After beveling the edges, and polishing this band nicely, it is placed in position over the broken tooth, and with the automatic mallet driven home. When in position, the upper edge of the band is slightly under the margin of the gum, and the lower extends down over the broken surface of the tooth, and forms a socket or receptacle for—well anything you may choose to insert.

However, my plan at this juncture was to take a short cuspid (rubber tooth) and grind the neck of it, so as to fit nicely down within the band, and at the same time to articulate with the lower teeth, and to fall into line with, and conform in appearance to, the upper teeth.

Oxyphosphate is then mixed to a proper consistency, placed within the band, and the cuspid forced into this and held in position, till the phosphate sets firmly around it. Now, with gold, or a good article of amalgam, fill in round the pins of the artificial cusp, and in the undercut of the natural one, and you have something for your pains, which your patient and you will be well pleased with.—*Miss. Trans.*

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**The new treatment of whooping cough** consists in the application with a brush, every two hours, of a one or a two per cent solution of resorcin. The applications are made to the pharynx and its supra-glottic portion, as well as to the opening of the glottis.—*N. Y. Medical Journal.*

## AN UNUSUAL CASE OF NODULES.

November 12th Miss L.— called to complain of severe pain in both upper second molars. She is 21 years of age, and had always been healthy. Her teeth are white and chalky, and she has lost several by decay. In the two complained of there is no decay, except traces in the crown fissures. I strongly urged her to have them treated for a few days, but she positively declined, and I took them out. On opening the first one (which I enclose) I found a pulp nodule, sufficiently large to account for the pain she had been suffering. The other tooth pulp showed no signs of ossification, but seemed to be almost completely atrophied. Now, we have all of us frequently met with pulp nodules, but not in such teeth as these. All writers, so far as I have read, affirm, and my own observations have led me to suppose that calcareous growths are only in teeth of dense and perhaps dark structure. Is this a new freak of nature, or have others found similar instances while I have been Rip Van Winkling?

Hamilton, Ont.

C. S. CHITTENDON.

As we were examining the beautiful nodule in this tooth, my son, C. E. W., brought to my desk a tooth he had just extracted, quite similar both in the character of the tooth and the position of the nodule. It is not well for us, either as dentists or authors to say what class or condition of teeth shall manufacture these bright little gems. We might as well seek to determine under what conditions the oyster shall make his pearl.—ED. ITEMS.

“What did you do with the pulps of the teeth replanted?” has been asked of me in reference to the case reported in Sept. *Items*. In reply I would say, nothing was done with them at the time, it being ten o'clock at night; though the misfortune of their removal did not escape consideration. Subsequently the pulps were removed and the teeth filled in the usual manner. E. B. SMITT, Linglestown, Pa.

**Bad Breath.**—Dr. J. Calder, Evanston, Wyo. Ter, thinks it is folly to say charcoal is a specific; that it is not so considered by any authority; that it rises from so many causes there can be no specific, each case requiring a special remedy. “Bartholow gives permanganese of potassa, chlorene, and carbolic acid, but no mention is made of charcoal.”

**The Cervical Margin.**—Many fillings fail because of the neglect properly to finish at the cervical margin. I have seen gold fillings that projected a line at the margin of the gums, where was formed the nucleus of decay. Yesterday I had a tooth filled for the first time in fifteen years. It would be better for us if we could occasionally have a tooth filled, that we might remain in an active state of sympathy with our patients.—*Dr. Davis.*



## For Our Patients.

### FALSE IMPRESSIONS.

DR. W. W. ALLPORT, CHICAGO.

Some parents and others often enhance the suffering of children, by giving them false impressions as to the magnitude of the suffering they must experience at the hands of the dentist. This makes children, and sometimes even grown persons, so timid, they are unwilling to submit to having the most trifling dental operation performed. But few persons have the least appreciation of the amount of trouble and discomfort they cause by giving these impressions.

Every one who has paid any attention to the action of the mind, or has observed its operations in everyday life, is well aware of the power of the imagination to produce or increase suffering.

The great influence this faculty has on the bodily functions, either in the production or relief of disease, has long been recognized by medical men. Says a writer, in speaking on this subject: "While on the one hand, the happy effects of a well-grounded confidence are daily brought under the observation of the medical practitioner in the recovery of patients under the most unfavorable circumstances; on the other, the direful consequences of this instrumentality are strongly exhibited during the prevalence of some epidemic diseases. These are known to affect individuals in proportion to the degree of apprehension that prevails; whereas medical men and others, who under these circumstances are not so liable to be influenced by the terrors of an excited imagination, are much less likely to be affected by the disease, or, if they are attacked, the termination is favorable in most cases. In many instances, again, and specially after accidents and operations, though the circumstances appear to be most favorable for recovery, yet if the *morale* of the patients be so influenced as to make them apprehend an unfavorable termination, how frequently does it occur that these prognostications are verified by the result! Predictions of the occurrence of disease or death at a certain period, by the hold they obtain on the patient's imagination, occasionally bring about their own fulfilment. It is said, that in the Sandwich Islands there is a sect who assume the power of praying people to death: "Whoever incurs their displeasure, receives notice that the homicide litany is about to commence, and such are the effects of the imagination, that the very notice is sufficient with these people to produce the effect."

The culprit placed in the prisoner's box for trial, buoyed up with the hope that the sharp and ingenious argument of his counsel will convince the jury he is innocent, sits with composure, and frequently

with indifference; but when the verdict of guilty is rendered, when his last hope is gone, mark the effect often produced on his physical energies. Though a powerful man, he is at once shorn of his strength; his form trembles; and under all the dreadful ideas which an excited imagination now suggests, he is overcome, and in despair, falls prostrate at the feet of justice, as if stricken by a thunderbolt. Why this remarkable change? There is no bodily disease thus suddenly developed. The man's physical organs are as healthy as before. It is the mind—the action of the mind on the body—which thus deranges and unnerves it.

A large portion of our happiness or misery is dependent on the workings of the imagination. This faculty may be so trained as to be a source of constant pleasure, or so directed and perverted as to make us continually miserable. It has been said that some die a thousand deaths in fearing one. So also of every pain or evil. They may be indefinitely increased by fearing them—by anticipating them—by allowing the imagination to dwell on them, and to draw horrid pictures of suffering.

This is specially so of sufferings experienced in dental operations, and still more particularly when the patients are children. When a dental operation is to be performed, instead of telling the patient of the suffering that will be relieved by it, the short time it will take, and the really small positive pain it will inflict, the patient listens to overwrought tales, allows his imagination to gloat over it, compares it to a thousand horrid things, and talks to others about it, till the imagination is so stimulated, that he suffers a thousand times more in the *anticipation* than is ever realized from the actual operations of the dentist.

It is a common practice with *most* persons, when speaking of their own cases, to use the most exaggerated statements—statements even bordering on absolute falsehood, as to the severity of the pain inflicted on them by dental operations. How often do mothers, even in the presence of their children, tell of the torture, the cruel, dreadful torture—almost as bad as death itself,—which they have had to undergo at the dentist's. Ladies will become eloquent, tragically eloquent, over their terrible descriptions. They will vie with each other in telling their experience, as if each were seeking to make out the most awful case possible. They have been filed and sawed, bored, scraped, punched, their mouths have been stretched and torn, their gums lacerated and cut, their teeth and nerves torn out, their jaw bones broken, and a thousand other things have been done—some real, but more manufactured for the occasion. They will exhaust the dictionary in looking for hard words to express the terrible sufferings endured at the hands of the dentist.

Reader, do you say this is an overdrawn statement? I presume you may be able to recall instances where you have heard nearly the same language used; and perhaps, too, you may recollect some occasions on which your own tongue was allowed full play in describing your *fancies* in the same direction, and that, too, in the presence of children.

What conclusion must a child form who hears such accounts of dental operations from time to time? What must the little patient think when the time comes for him to go to the dentist? What other result could be expected from all this false and foolish exaggeration, than that the child should be filled with terror at the mere thought of a dentist, or anything that he might do? Surely every one must see the exceeding folly and injurious effect of these exaggerated statements on the young, and yet they are made almost daily by parents and others as if unconscious of the evil they are doing, and of the unnecessary sufferings thus inflicted on children. If dentists are to be held in such horror for inflicting the little pain that is *necessary* in the discharge of their duty to their patients, how should those be regarded who cause so much *unnecessary* suffering, by indulging their dispositions in relating over-wrought and marvelous statements?

There is pain experienced by the patient in dental operations; nor do we wish parents or dentists to *conceal* this fact from children. We do not object to their being told the truth, but to their being told *more* than the truth. There is as much injury done in such cases by exaggerating, or overstating the truth, as by denying or concealing it. To tell a child that the extracting of a tooth will give pain, is one thing, and to tell it a whole chapter of horrors, and make it feel that it is next to death, is a very different thing. It is the difference between truth and falsehood. Consider what impressions the effect of such language has on the well-being of children. It is creating the morbid excitement of the imagination, and investing it with these frightful images of pain which we have been endeavoring to point out. "That faculty which so frequently enhances enjoyment by anticipation,

‘ Whose might

Can make the desert heavenly fair,  
And fill with forms divinely bright,  
The dreary vacancy of air,’

and to which, when under proper control, the civilized world owes so much happiness, is also unfortunately instrumental in the production of much of the misery that exists, by the gloomy forboding of expected evils, or by the ideal aggravation of present misfortunes."

Again, it is not uncommon to hear persons, in the presence of children, using harsh and censorious epithets when speaking of their

dentist. This is done when no disrespect or injury is intended; but it has an injurious influence on the minds of the young. They use language of censure and condemnation, which make children think dentists must be cruel and unfeeling men, simply because, from very necessity, some of their work cannot be well performed without giving pain.

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FROM "HEALTH AND HOME."

"Crippled for life," any person who has lost a tooth.

No personal adornment can compensate for ugly looking teeth.

Toothache never makes a postponement on account of the weather.

A decaying tooth, like pent-up fire in an unexpected place, requires only a little fanning to create a panic.

Children's teeth require more attention than those of adults, just as the tender shoots require more care than the full grown tree.

The utter indifference manifested by the great majority of people regarding the value of their teeth is almost bewildering.

The dentist who has no higher ambition than to "kill nerves," "extract teeth" and "make plates," is hardly worthy the name.

A dentist should be sympathetic by nature, but he must never let his sympathy influence his judgment, even if pain is necessarily inflicted.

If we neglect to pay proper attention to our teeth, nature will exact a penalty from us that will tax our physical endurance for all time to come.

When people use a little good judgment in the matter of preserving the natural teeth we shall see fewer dyspeptics, less neuralgia and general debility, and less disfiguring of the face by the loss or bad condition of the teeth.

Do you brush and cleanse your teeth daily? If not, why not? They need it quite as much as your face or hands—yet you would consider it a piece of unpardonable impertinence if any one asked you if you washed your face daily.

Artificial crowns, set on sound roots, make as artistic and serviceable an operation as a dentist can perform. They frequently last ten or fifteen years.

Prosthetic Dentistry, or the art of restoring lost organs, is reaching a high degree of perfection. No one need be without artificial substitute for lost teeth.

We have no patience with people who, when they make infrequent visits to a dental office to be relieved of an aching tooth, occupy a half hour or more of valuable time discussing the question of extraction, and citing what "they say" as evidence that it will hurt so terribly. A person with a troublesome tooth visits a dentist to get relief, not to argue the case. Have done what you came to have done.

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### TO AN ACHING TOOTH.

EDITOR ITEMS:—I enclose herewith a copy of an old poem, which a friend permits me to copy from an old scrap-book. By whom it was written or where first printed I have no means of knowing, but I am assured that it is more than fifty years old.

Yours respectfully,

D. W. BARKER, 383 Dean St., Brooklyn, N. Y.

Avast there, with ye'r beetle!  
 Can't ye forbear a leettle,  
 Ye graceless thing—  
 Is this the trade I bred ye,  
 Have I with good things fed ye—  
 Myself to sting?

Afore your sense got blinded  
 Ye were the sweetest minded  
 Of all the row.  
 Now, though ye seemed so saintly,  
 For every little dainty  
 Ye pay—a blow.

Oh fury take ye'r poker!  
 Do you suppose, old joker,  
 Ye'r diggin' in a ditch?  
 Or is it with a harrow  
 Ye scratch along the marrow,  
 With such a twitch?

Ye are the more ungrateful,  
 Because ye know (ye hateful!)  
 My great regard—  
 My fatherly affection,  
 That waived the just inspection  
 And probing hard.

Ye'r mates were all in order,  
 Like box wood in the border,  
 Ye hollow heart;  
 Till ye began contriving,  
 To set them all a driving  
 My jaw apart.

Long ye have been my sorrow,  
 But mind ye, on the morrow,  
 What ye deserves,  
 Ye'll get—for all ye'r prancing  
 Ye'r devlin and ye'r dancing,  
 Upon my nerves.

Ye'll need a pair o' crutches,  
 T' elude the dentist's clutches,  
 Ye rebel one;  
 Ye'r past all hopes of curin'  
 So I'll wrench ye from ye'r moorin',  
 And end ye'r fun.

## Editorial.

### PERSONAL CLEANLINESS AND UNPLEASANT ODORS, AND DISEASE.

Sometime since, referring to personal offensive odors, we laid stress on keeping the entire body clean, of having good digestion, and of avoiding foods tending to taint the perspiration. We would like to extend those remarks.

And to the last first. A dentist certainly has no right to eat cabbage and onions and other offensively odoriferous foods. And if these are to be avoided because of their offense to others, we should seek those things which produce a pleasant aroma: A dish of nice strawberries or pineapple, a handful of wintergreen berries and an occasional piece of sassafras, spikenard, ginseng, and many other vegetables, fruits, and aromatics, impart to the breath and to the insensible perspiration an agreeable aroma that should be prized. If *something* must be chewed, instead of giving your patients the abominable stench of nasty tobacco, take tolu, tamerac, or almost any of the balsams.

But be as careful as we may of what we eat, or use aromatics as much as we may, if we give the stomach more food than it can digest, there will be a decay of part of it which will send out defecation and disease into all parts of the system, and surround the body with the odor of death. Most of us eat too much, and our food is too rich and concentrated. We are gormandizers, and it is no wonder so much is rejected by the delicate digestive follicles; and that the rejected matter sends out the offensive smell of putrefaction. Yes, and more than this, the blood made by such a mass as is in the stomach, cannot be healthy. Therefore, as one organ after another receives the illy prepared blood, with effete matter circulating in it, we have impaired function and a diseased condition of the organs. The organ that is the weakest becomes the most effected, and then we name the disease after that organ. The poisonous matter thus taken up by the lymphatics is also brought to the skin to produce pimples and blotches and cutaneous affections; on its way it clogs the circulation, producing what we call rheumatism and other painful disorders. Thus we have from undigested food disorganized and disorganizing matter. O, my; what foolish creatures we are! How much easier it is to prevent disease than to cure it. We sometimes think it is a sin to be sick; we would be almost sure of it if we were not occasionally sick ourselves. It is certainly often our own fault.

But though we may be judicious in the quantity and quality of our food, there will be offensive material and gases thrown to the surface through the pores of the skin. This is nature's outlet for them;

#### ITEMS OF INTEREST.

and if by its healthy condition, and by our intelligent management, it is able to do its work well and promptly, these exudations are easily managed.

Of course we all know that we are covered with scales, that is, if we are not cleanly. It is like the dandruff of the scalp—with those who are too lazy to remove it. Those who properly and frequently clean their skin have few of these scales of dead scarf skin; the surface is almost as soft and transparent and lovely as a child's.

The true skin under this is not a simple protection. Running up through it from the suderiferous glands in the under layer are spiral, hollow tubes, which with their glands are from an eighth to a half inch long according to the thickness of the skin, and from a tenth to a thirtieth of an inch in diameter. There are more than two million of them, continually sending steam and gas to the surface in the form of sweat, and with this, effete, gummy material that is deposited on the surface. If this matter is not frequently removed it closes the pores, and is a stench. No one can disguise it, and if left long will proclaim its presence loudly, at least to the olfactories of our patients. On some parts of the body, as the palms of the hands and the soles of the feet, there are 2800 of these pores to the square inch. If the two million five hundred thousand in the skin of a grown person were put length to length they would reach more than nine miles! But in this form they would not do the good they accomplish in their short lengths. Each with its mouth open breathes in the pure oxygen of the air, and breathes out the smoke of the internal fire in the form of carbon; and with this carbon spits out the effete matter sent into their throats from the venous blood. We are confident the importance of the healthy functions of these outlets are not generally appreciated. Why, they are as indispensable as the proper action of the liver or the kidneys.

If by a sudden chill the mouths of these tubes become constricted, how quickly fever comes; and much of the enervation and laziness we sometimes feel is by their being closed with this dead, gummy matter of which we have spoken.

Jump naked into a wet sheet; have it packed tightly round you, and then quilts bound round this, till you are made a mummy; then drink copiously of cold water and go to sleep. In fifteen or twenty minutes you will begin to sweat from head to foot, and your wet sheet will become a universal poultice. Don't be in a hurry to come out; stay at least an hour and a half, and three hours won't hurt you. Now with lots of hot water and soap scour yourself. You never saw such a scum on the surface of the water you ever before washed in! Where could it all have come from? And that wet sheet; see how perfectly covered and saturated it is with offensively smelling gummy stuff? It

can hardly be washed out. But before wiping yourself dash on cold water, and then rub hard and briskly till the whole skin glows. Ah, how good you feel now. You want to run and skip and jump. Well, this is nature's way of telling you to do it, and it is nature's proof of the sanitary good of the operation. Try it, you that have an offensive odor, and see how a few such renovations will make you as sweet as a summer's rose. Try it, you that feel dull and lazy, languid and drowsy, enervated and "bilious," and see how quickly it will make you young again. Try it, you old, worthless, rheumatic, gouty, skin bound grumblers and grunters, and see how a few will straighten you out. But those, dirty, saturated, "highly scented" underclothes you took off when you entered the hydropathic pack—don't put them on again, take clean ones. Just weigh your flannels when they are clean and when you have worn them a week, and see the difference. This should convince any one of the importance of frequent changes and frequent washings.

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#### WHAT A SHAME!

We were in a gathering of dentists recently when a gentleman by our side, pointing to a fine, intelligent looking dentist, said: "Not long ago that gentleman, while presiding at a dental meeting, was so drunk it was necessary to remove him from the chair." What a shame!

We were at a supper given by an honorable body of dentists not long since, where one of the number became too drunk to leave the room. Others were visibly intoxicated, and nearly all drank three or four kinds of wine. What a shame! For many years we have not attended any gatherings, where we had reason to believe liquors would be used. In this one, and in one other instance, we were deceived.

We are informed that at the Niagara meeting there was a disgraceful scene of debauch. How sorry we were to hear that one of the prominent officers disgraced himself by intoxication. This may have been at a side show, but even there it was a shame.

At the close of the November meeting of the First District Society of New York, we were extremely mortified to see six or eight prominent dentists pass into a saloon for intoxicating drinks. The leader was astonished to hear us say we never drank intoxicants.

"Well, come in and take a cigar then."

"No, I never smoke," was our reply.

"Well," said he, "that is queer enough."

We thought the queerness was on his part; for as it is often with those cursed with this drinking habit, its indulgence was more to him than a business engagement. We had just yielded to his importunity to change our hotel for his, that he might explain a dental process, in



which he was interested, and which could be attended to only then. What a shame!

Visiting a city, we called at the office of a dentist who had been for years prominent in the profession. We were astonished to see the unkept condition of things. He soon entered half drunk, and as unkept and seedy as his office. Immediately he began to make excuses. As always with this class of men, every one was to blame but himself. His dental practice was not what it used to be. He had gone as high as \$10,000 a year, but he could now hardly keep soul and body together. The world had used him roughly. His neighboring dentists had cut prices, and had been unscrupulous in getting his patients, till he didn't care "a damn" whether he worked or played; and as for fawning and flattering for patronage, he had got over that. If a man, or woman either, wanted his services, "they could be had by coming to his terms," etc. Thus this man had thrown away a good practice, a good character, and, as we afterward learned, a good home, in exchange for this curse of all curses. How many dentists are on the same road?—many of them not so near their end as this man, but at various stages on the way to it. What a shame!

Within one year, in one county in Pennsylvania, three graves have received dentists who died drunkards. What a shame!

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**Imagination in Patients.**—A German physician expresses an opinion that at least a third of the illness of the patients who sought his advice was purely imaginary. He found it not only against his own interests, but also against that of the self-supposed sufferers, to destroy the illusion by informing them that there really was no cause of anxiety. Ill-health was to them a something of almost vital importance.

To destroy the pleasing belief that they possessed this blessing was an absolute cruelty. In the few instances in which he broke to them the terrible truth that they were quite well, he found the result was genuine illness. For the patients, all interest in life departed with their favorite occupation of nursing themselves; and their health became seriously affected by nervous depression. He also found, as a rule, weakly persons live longer than the strong. Without going so far as to say the best lives are those rejected by the insurance offices, he thought, persons with a screw loose more often attain longevity than those in whom no trace of disease can be detected.

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**The Dental Eclectic**, a bi-monthly, published at Knoxville, Tenn., is certainly a live journal. Dr. S. S. Willard, its conductor, shows wisdom in his selections and in his editorial thoughts.

## TALENT AND GENIUS.

There are giants in the land. Many we do not see for their modesty; some pigmies swell out and appear giants who are not.

How strange that men of talent and men of genius are seldom conscious of possessing any extraordinary powers. They see results as coming only from hard, persevering, all-absorbing *work*. There may be men so talented, with such great, symmetrical minds, that truth comes to them as in a lightning's flash, and there may be men of genius so specially endowed in some faculty that without effort, they can in an inspired moment, produce something out of nothing. But most of our men of talent and our men of genius have to work persistently, with the utmost activity of their intellects, to compass their ends. But each works in his peculiar way. The man of talent accomplishes his purpose by a very different process than the man of genius.

Contrast these gifts for a moment. Talent is capacity; genius is intuition. Talent is symmetrical, balanced, orderly; genius is erratic, narrow, defective. Talent is a gentleman; genius is a crank. Talent is occupied in broad, deep, multitudinous thoughts, astonishing the world by their vast proportions, their wonderful brilliancy, and their commanding power; genius deals in circumscribed, subtile and subtle plans, puzzling everyone by their singular weakness and paucity and their apparent inadaptation and incoherence. Talent is complacent, appeals to the multitude, and lives on applause; genius is uncompromising, is contented with its own approval, and works in isolation. Talent is conservative, seeks as its reward ease, wealth and luxury, with the satisfaction of accomplished facts; genius is radical; knows no rest, but labors, endures, and sacrifices for an idea, spends fortunes to unravel intricacies, and enjoys the anticipated—burrows in the mountain, flies in the balloon, goes everywhere, does everything to accomplish its end. Talent rides on the glory of what is: the lore of the past is its wealth, established wisdom is its boast, the opinions and practice of the elite are its pride: genius is continually anxious for what is not, knows no impossibilities, and strains every nerve to do what cannot yet be done, to make what cannot yet be made, and to prove what cannot yet be proved—it peers into the future, presses into mysteries, does anything to bring light out of darkness, order out of chaos, use out of uselessness—all to accomplish the world's progress.

Are you neither a man of talent nor a man of genius? Simply one who has to plod on, accomplishing results by the hardest work and the closest study? Seek a man of talent, and see if he does not say this is his way to success. Go to the man of genius and observe his self-abnegation as he forgets everything else in his one controlling idea; see how he pursues this with every power of soul and body.

Would you be something? something though your powers be few and meagre? Imitate these men. Then, though you may not believe yourself talented or ingenious, you will become a light in the world and an honor to yourself.

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### TEACHING THE HANDS AS WELL AS THE HEAD

Our popular instructors make little attempt at reducing to practice what they teach; and much of what they teach has no practical importance, or application to any industrial pursuit. It is mainly memorizing, and largely memorizing what is not understood.

Some years since we were drawing the attention of the Superintendent of the New Jersey Normal School to this thought, when he freely admitted that most of the education of children was memorizing what they could not understand, and justified this as necessary and proper. Said he: "It is the teacher's business to store the memory; it is the scholar's business to draw from this store as occasion in the future shall demand. When it shall become of use it will be understood; but while being taught, the child cannot be expected to understand either the reason, adaptability or usefulness of the instructions given." This is the way most of our children are being taught, and this is the reason our "educated" men and women are so little benefited by their years of study.

It is fortunate that the day is dawning when the child shall be taught as a reasoning being, and one, too, that shall be able to do something. True education must be to teach them how to do that something; how to be practically useful; how to mix brains with their labor.

All the faculties must be educated as well as the memory, and the hands as well as the head. We must not only impart knowledge to our scholars, but see that this is so masticated and digested and assimilated as to become wisdom,—wisdom, too, that shall show itself in skill as well as theory, in the mastery of some useful vocation as well as in the intricacies of science.

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**Cocaine in extracting.**—Dr. A. M. Krann of Morgantown (what State?) gives a pretty good account of his success during the last two years. We should like to give the cases he cites in detail but the account is so hurriedly written in pencil that we dare not give it to our printers. He uses it hypodermically, injecting about 15 drops (strength not given) "on the nerves at the mental foramen in the lower jaw and infra-orbital in the upper." He finds "the result is not as good when there is inflammation or suppuration, and with women during a certain period of their month."

**Lead Foil covered with tin.** Four years ago we bought a quantity of this, Nos. 10, 20, 40 and 60, and sold it for pure tin foil. Its platicity was remarkable, working almost like very stiff putty. When our stock was exhausted we went for more, asking as before for their pure tin foil.

“We do not make pure tin foil,” said the present salesman.

“Six months ago I bought a foil here for pure tin.”

“Then our salesman made a mistake. Our foils are lead covered with tin.”

Instead of buying more we returned to the depot and wrote to a number we had previously supplied, to this effect. Some of them persisted in continuing its use, declaring that they wanted nothing better, and that they would carefully report results. We have never heard of any bad results from its use, but several speak highly in its praise.

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**Advanced Surgery.**—The sphenoid bone was successfully removed from a patient, recently, at the Medico-Chirurgical College of Philadelphia. Bonwill's surgical engine was used. This is an extraordinary instance of surgery. At the same institution, the substitution of epithelium scraped from a horse as a skin graft in the treatment of ulcers, has been successfully used.

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**Colored dentists.**—The Meharry Medical College, Nashville, Tenn., (for colored students), has opened its doors to dental students, and appointed a special faculty for their instruction. The medical graduates from this college are doing well throughout the southern states; let us hope this new opening will be equally successful. The college is needing funds. The philanthropic could not do better than to make this an outlet of their means.

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A Chicago paper tells the following of the well-known Dr. J. Adams Allan, when he was commencing practice. One winter's day, all muffled, he was riding in a street car, when he overheard two persons talking about him. One asked the other what sort of a doctor was this Allan? “All I know of him is that he snatched my aunt from the grave last summer.” “Did he, indeed,” said the other, “well, then, he must be a pretty good doctor. What was the matter with your aunt?” “Oh! She was dead and buried, you know.”

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**The Dental Review** is a new Dental journal published at Chicago, at \$2.50. It starts out with a good program well sustained.

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**Mr. Sibley's Dental Practitioner**, of Philadelphia, ceases publication with the December number.

## Miscellaneous.

### OUR BOYS.

In glancing over the possible openings for boys, one is forced to admit that unless a lad have genius, perseverance, and a good physical constitution, he will find the beginning of a professional life almost insurmountably difficult, if he be obliged from the start to depend on his profession for a living. So large is the competition, even in our own comparatively new country, and still more so in England and on the Continent, that the inducements to enter the so called learned professions are financially very small. The satisfaction of ultimate success, and the intellectual pleasures which such a course makes possible, are regarded by any true student as more than compensations for the early discomforts, and we would never urge considerations of a financial nature against a boy's following his natural bent. That is a fatal policy which advises him to choose his calling simply for the money returns it promises, for he will learn sooner or later that money is but a small factor in true success. But we would very strongly urge such considerations in attempting to dissuade those who have no natural qualifications for a professional life from entering on so unpromising a career. There are many whose scholarly abilities are too meager to permit the hope of successful competition when pitted against their more gifted brothers. It is certainly unfortunate, if not pitiable, that these young men should, through mistaken notions of what is respectable and what is praiseworthy, rush into a course which can bring them only failure and mortification.

Each year thousands of young men are graduated from our universities and schools of learning, only a very small proportion of whom are ever heard of afterward in the real contests of life. And it has become a notable fact that an advertisement for a man to fill any but a manual position will bring a number of college graduates out of all proportion to the total applicants. Unfortunately few have genius; a smaller proportion than should, have good health; and of the three, perseverance only appears to be a cultivatable quality, and even this is largely limited by physical endurance. A very successful man of affairs, quoted by an English contemporary, *Industries*, when asked for the secret of his success, replied, "I had the physical constitution to begin work at six o'clock in the morning, and keep on till eight, nine, or ten at night, and that for twenty years." One would say that his success was well deserved.

It is not a Utopian tenet that teaches the possibility of success for all normally constituted men. The essential condition is the right choice of a vocation. It is a serious question, what to do with our boys, for it is just here that so many fatal blunders are made. The parent or guardian, actuated by the best motives in the world, is very apt to lay out a plan of life framed entirely from his own point of view, and unmindful that what may prove eminently successful in one boy may be equally disastrous in another. And very often the decision is rendered more difficult by the necessity laid on the boy of earning his daily bread as he eats it. Then, too frequently, circumstance usurps the place of decision, and what should be the result of careful

thought is left to mere accident. Though one be of optimists the most extreme, it is impossible to deny that the plan of life pursued by the majority of men does not lead to success. And since this plan, whether it be of design or the mischievous fatalistic drifting which is no plan, begins when the man is still a boy, it is in the boy that our hope for the future lies. How is he to be trained, and his skill and character developed?

We are accustomed to believe that demand and supply regulate themselves, but in this very problem of the future of our boys, we are brought face to face with a curious incongruity. We see on the one hand the overcrowded professions, and hosts of clerks who are ready to apply for any vacant position, however low the salary, while on the other hand we see a market for labor which is so far from being glutted that its supplies must be brought from foreign countries. But between these unequally balanced classes, little or no exchange is possible, for it is a characteristic of the latter class that its members must be able to use their hands and eyes, as well as the brain, and must have a manual dexterity sufficient to place them among the ranks of the great industrial army of producers. How are our boys to attain this?

What is wanted to-day in our own country is skilled labor. Education in its highest form is wanted, but it must be coupled with an ability to do something, if it is to gain for its possessor any position in life. It must find some mode of expression, or the world is none the richer. Americans are noted for their ingenuity, but in how few has a thorough technical education brought out its highest powers of expression! Here is a field which can be heartily recommended to any boy who has decided to take the reins of life in his own hands instead of leaving them to the caprice of circumstances. If he has a taste for the mechanic arts, he has a splendid opportunity for the exercise of his powers. The acquisition of manual dexterity is not difficult. It requires little beyond intelligent perseverance. But when this skill of hand is once acquired, it brings an independence which many a man in apparently easier circumstances of life might well envy. Nor is it the humble calling which the drawing room is apt to picture it. The possibilities open to the skilled worker are almost unlimited. Some new and more excellent creation is always possible, and from the workshop the directors of large undertakings are commonly chosen.

Here comes in the necessity for industrial schools; for there are few vocations in which we can advantageously apprentice our boys. It is the self-interest of our foreign skilled laborers who are a majority in our shops, to discourage this class, and the proprietors and foremen dislike the trouble. So long, therefore, as Europe supplies our demand for skilled labor (largely from their industrial schools), so long it will be next to impossible to apprentice our own boys to the trades in the old fashion way. Our dependence must be on *industrial* schools of our own. We have some; may these increase in number and efficiency. In fact they should be a part of our common school system; for in this feature of education lies the secret of the material and industrial advancement of our youth. Such schools as the *Worcester Free Institute*, Stevens Institute of Technology, Hoboken, N. J., Miller School, Batesville, Va., Town Scientific School, Philadelphia, Pardee Scientific School, Lafayette College, Easton, Pa., J. C. Green's School of Science,

Princeton, N. J., Case School of Applied Science, Cleveland, O., Rose Polytechnic Institute, Terre Haute, Ind., and many other industrial schools that could be mentioned are all an honor to the nation. In teaching the hands as well as the head they develop and bring into actual use, the whole man. Were more of our boys trained in such schools we should not have to send to Europe to plan and superintend so many of our public works as we now do. Our own boys would come to the front instead of being crowded into back seats as now.

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### CURATIVE POWER OF WATER.

There is no remedy of such general application and none so easily obtainable as water, and yet nine persons in ten will pass it by in an emergency, to seek for something of less efficacy. There are but few cases of illness where water should not be given the highest place as a remedial agent.

A strip of flannel or a napkin folded lengthwise and wrung out of hot water and applied around the neck of a child that has the croup will usually bring relief in ten minutes. A towel folded several times and quickly wrung out of hot water and applied over the seat of pain in toothache or neuralgia will generally afford prompt relief. This treatment in colic works like magic.

We have known cases that have resisted treatment for hours yield to this in ten minutes. There is nothing that will so promptly cut short a congestion of the lungs, sore throat or rheumatism, as hot water when applied promptly and thoroughly. Pieces of cotton batting dipped in hot water and kept applied to all sores and new cuts, bruises and sprains, is the treatment now adopted in hospitals.

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A sprained ankle has been cured in an hour by showering it with hot water poured from a height of three feet. Tepid water acts promptly as an emetic, and hot water taken freely half an hour before bed time is the best of cathartics in constipation, while it has a most soothing effect on the stomach and bowels. This treatment continued for a few months, with proper attention to diet, will alleviate any case of dyspepsia.—*Ex.*

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Dr. Charles Pickney was asked what he thought of the allopathic and homœopathic practice in medicine. "Forty-nine people out of every fifty who are sick would get well without medicine, but the fiftieth would die. Homœopathy does, perhaps, less harm to the forty-nine than allopathy, but allopathy has to come in to save the fiftieth fellow."

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**To Preserve Eggs.**—Pack in dry salt with the *large end* down; they will keep nicely for at least six months. We emphasize the words, for the *large end* contains the air bubble, and the fluid rests on that, and that end being the porous part of the shell, the fluid holds the air bubble, preventing it from expanding, which it would do in any other position, and also prevents the yolk settling to the shell. We have thus kept eggs for eight months with perfect success.—*Amer. Farmer.*

**Sugar** can be made from any description of vegetable fiber, such as sawdust, rags or tow. The process is to digest for several hours in sulphuric acid, then to dilute the mixture with water and to boil for some time, when the rags or what not will be found to have undergone a magical change, and to have been converted into sugar. A curious fact is that 100 parts of rags will yield 115 parts of sugar, the increase in weight being due to the elements of water absorbed during the change.—*Artisan*.

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**Aniline Oil as an Anesthetic**.—Physicians are now using aniline oil as a local anesthetic when simple operations, such as the opening of a felon, are to be performed. The finger, in such a case, is dipt for a short time in the oil; and, though the flesh may subsequently be cut to the bone, it is said there is absolutely no pain.

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**Economical Gilding**.—To gild works of art in bronze, gas-fittings, etc., the following mixture is recommended:  $2\frac{1}{2}$  pounds of cyanid of potassium, 5 ounces of carbonate of potassa, and 2 ounces of cyanate of potassa; the whole diluted in 5 pints of water, containing in solution  $\frac{1}{4}$  ounce of chlorid of gold. The mixture must be used at boiling heat, and, after it has been applied, the gilt surface must be varnished over.

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**Fruit stains** on cloth or on the hands may be removed by rubbing them with the juice of ripe tomatoes. If applied immediately, powdered starch will also take stains out of table linen; left on the spot for a few hours it absorbs every trace of the stain.

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**Blackboard Composition**.—Make a thin paste of lampblack and flour emery with shellac varnish, and apply it to the wall or board to be coated. Should the mixture be too thick, it may be thinned by adding alcohol.

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**Says** an experienced blacksmith: "More horses' feet are ruined by rasping the hoof than by any other cause." This outside coating is impervious to water and does not evaporate. When broken into by rasping, the moisture of the foot evaporates, leaving the hoofs dry and brittle.

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**Turpentine in Washing**.—A little turpentine in the wash-boiler will make clothes very white, and will often remove incorrigible stains from white goods. A tablespoonful of turpentine to a large boiler, or a teaspoonful to two gallons of water. There is no smell, the boiling preventing it.

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**The efflorescence on brick walls** is quite common. It consists, as a rule, of more or less of sulphate of magnesia (Epsom salts), contained either in the bricks, or the mortar, or both. Unfortunately there is no cure, though it will often disappear of itself or will only be seen at long intervals. In some cases painting the walls with several coats of good oil color has been found effective.

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Iron rust is removed by salt mixt with lemon juice.