



Phineas T. Barnum, Gardner Q. Colton, and Painless Parker Were Kindred Princes of Humbug

Qing H. Yang ^{a,*}, Theodore A. Alston ^b

^a Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Harvard Medical School, 55 Fruit St, Boston, MA 02114

^b Boston Medical Library, 10 Shattuck St, Boston, MA 02115



ARTICLE INFO

Article history:

Received 2 February 2018

Received in revised form 30 August 2018

Accepted 31 August 2018

Keywords:

Barnum effect

Hypnotism

Laughing gas

Nitrous oxide

Edgar Rudolph Randolph Parker

Placebo

ABSTRACT

Phineas T. Barnum (1810–1891) and Gardner Q. Colton (1814–1898) both entered the laughing gas show business in Manhattan in 1844. With Horace Wells (1815–1848), Colton introduced inhaled nitrous oxide for dental anesthesia in December 1844. The Barnumesque nature of laughing gas exhibitions may have contributed to the initially negative reception of nitrous anesthesia as humbug. Colton continued laughing gas shows after 1844, and he performed in a Barnum forum in Boston in 1862. In 1863, Barnum encouraged Colton to establish a flourishing painless dentistry practice in Manhattan. Barnum designated himself to be the Prince of Humbug. He embraced humbug for entertainment purposes but decried medical humbug. Notwithstanding, Barnum explicitly evinced awareness of the power of the placebo response. Accordingly, the proneness of individuals to deem impersonal all-purpose assessments to be personally applicable is dubbed the Barnum effect. Barnum was indirectly connected to Painless Parker (1872–1952), a dentist who exploited sensational advertising and humbug and ran a circus.

© 2018 Anesthesia History Association. Published by Elsevier Inc. All rights reserved.

Introduction

Nitrous oxide was synthesized in 1772 by British chemist Joseph Priestley (1733–1804), and its nonirritating, intoxicating, analgesic, and potential anesthetic effects were described by Humphry Davy (1778–1829) in 1800.¹ After self-experimentation, Davy introduced laughing gas parties that enticed colleagues to explore recreational use of the gas. The parties evolved into popular demonstrations of the hilarious “giddiness” induced by nitrous.¹ Shows spread to America, where they were lucrative, for instance, for Samuel Colt (1814–1862), later known for his revolver-type firearms.^{2,3} Both medical student Gardner Quincy Colton (1814–1898) and entertainer Phineas Taylor Barnum (1810–1891) launched laughing gas exhibitions in New York in 1844.^{3–6} Colton had momentarily presented nitrous to anesthesia pioneer Horace Wells (1815–1848) in December 1844.⁷ The coincidence of Colton and Barnum in time and space suggests a connection between the two. Barnum did influence Colton as well as the Barnumesque dentist who called himself Painless Parker (1872–1952).

Nitrous Derided as Humbug

The first anesthetizer to be accused of humbug, namely, performing a deceptive trick, was probably English physician Henry Hill Hickman (1800–1830), who reported in 1824 that hypoxic carbon dioxide could render experimental animals insensible of surgical pain.⁸ Perhaps the second was Wells, who failed to impress a tough audience when he demonstrated nitrous oxide for dental anesthesia in Boston in 1845.^{9,10} Viewed from today, neither Hickman nor Wells elicits a sense of humbug. They correctly announced that the torture of surgery could be averted by the inhalation of gases that depress the central nervous system. Those innovators were sadly misjudged to be humbugs, or purveyors of false promises, largely because their inhaled agents were not strong enough to reliably convert skeptics.

Months later, Boston surgeon John Collins Warren (1778–1856) declared that the ether vapor of William T.G. Morton was “no humbug.” Still, the attempt by Morton to gain proprietary rights to inhaled anesthesia through patent and branding (calling ether *Letheon*) drew the epithet “quack” from detractors.¹¹ Inebriation, the voluntary abdication of reason, was considered a moral vice, especially if done for mere pleasure.¹² For decades, widespread nitrous shows featured comical public display of each participant reduced to “the disordered directives of his lower faculties and appetites.”¹²

* Corresponding author. Tel.: +1 617 733 6831.
E-mail address: hellen.yanagi@gmail.com. (Q.H. Yang).

The shows may have contributed to the association of the inhaled inebriants with irrelevant jocularity. Failure to acknowledge the clinical value of these agents likely slowed experimentation with anesthesia in surgery and postponed the acceptance of the concept of inhaled anesthesia by the medical community and the society.

A GRAND EXHIBITION
Of the effects produced by inhaling Nitrous Oxide, or
EXHILARATING OR LAUGHING GAS,
will be given in the
BROADWAY TABERNACLE,
TUESDAY EVENING, March 19.
SEVENTY-FOUR GALLONS OF GAS
will be made, so that all in the audience who wish can have
an opportunity to take it.

THIRTY YOUNG MEN
have volunteered to take the Gas, so that there may be no delay,
in case there should be any hesitation among the audience
to come forward.

TWO GAS BAGS
will be used, so that as soon as the effects have ceased upon
one person, another bag may be ready for the next.

TWELVE STOUT MEN
are engaged to stand upon the stage, (which will be erected for
the purpose,) to prevent those who take the Gas, while under
its influence, from injuring themselves or others.

It is desired that no person will present himself to take the
Gas, who believes that he will fight when under its influence.

Mr. G. Q. COLTON, who has the honor to present this
entertainment, has given two of a similar character in the
Medical College in Crosby-street, which were intended mainly
for the gratification of Students and friends; but finding such
an enthusiasm manifested upon the subject, and the Anatomical
Lecture Room being too small to accommodate, to the assembly,
he consented, at the suggestion of many then present, to offer
the next to the public in the BROADWAY TABERNACLE.

The two previous Entertainments were attended mostly by
Gentlemen of the Medical Profession, and their Ladies, (of
each about an equal number,) and a more select company was
never assembled. It is hoped the next will present the same
appearance.

To test the purity and safety of the Gas, Mr. Colton will
be the first to take it.

To give some idea of the effect which the Gas produces
when inhaled into the Lungs, I have only to quote from Hooper's
Medical Dictionary, under the head of Nitrogen.—
Mr. Hooper says:

"SIR HUMPHREY DAVY describes the effect it had upon
him as follows:—Having previously closed my nostrils and
exhausted my lungs, I breathed four quarts of Nitrous Oxide
from and into a silk bag. The first feelings were similar to
those produced in the last experiment; (giddiness) but in less
than half a minute the respiration being continued, they diminished
gradually, and were succeeded by a sensation analogous
to gentle pressure on the muscles, attended by a highly
pleasurable thrilling, particularly in the chest and the extremities.
The objects around me became dazzling and my hearing
more acute. Toward the last inspiration the thrilling increased,
the sense of muscular power became greater, and at last an irresistible
propensity to action was indulged in. I recollect but indistinctly
what followed. I know that my motions were various and violent."

The effects above described are tame when compared with
those usually manifested—but they are given on account of the
name and authority they bear. All this would have been felt
or acted out in one-tenth part of the time it has taken to
read it.

For an account of the effect produced upon Messrs J.
Thompson, T. Papale, Stephen Franwick, Robert Kinglake,
M. D., Mr. Wedgewood, and Robert Southey, (Poet,) the
public are referred to Hooper's Medical Dictionary, as above.

Mr. Hooper says of Robert Southey, 'that he once poetically
remarked that he supposes the atmosphere of the highest of
all possible heavens to be composed of this gas.' From my
own observation more than half who take the gas, either dance,
sing or laugh. The leading trait in the character is usually
brought out.

Ladies and those who accompany them, will take
seats in the Gallery.

Doors open at half past 6—Entertainment to commence
at half past 7 o'clock.

Tickets 25 cents each, to be had at the principal Book,
Music, and Drug Stores in Broadway, and at the door on the
Evening of the Entertainment. mh16 SM&T

Barnum with Colton

Colton entered the Crosby Street College of Physicians and Surgeons in Manhattan in 1842.⁴ Medical students of the time self-experimented with nitrous oxide,^{4,5} and Colton gained popularity among classmates for his talent at synthesis of nitrous oxide.^{4,13} In spring of 1844, Colton approached David Hale (1791-1849), a media entrepreneur, preacher, and owner of the Tabernacle at 340-344 Broadway in Manhattan, to set up a public laughing gas show. More than 3000 people attended on March 19, 1844, and the show proved financially successful (Figure 1).^{12,14} This was the first demonstration of laughing gas by Colton that was open to the public. Colton profited more than \$400 overnight.¹³ He thus left medical school without a degree to pursue showmanship, subsequently holding regular exhibits at locations around the city from 1844 to at least the end of 1845 (Figure 2A-D).^{4,13}

A few blocks downtown, Barnum acquired a five-story showplace at 222-224 Broadway in 1841 and named it Barnum's American Museum. Laughing gas shows were prominently featured among a variety of live entertainments at Barnum's museum from November 1844 to January 1846 (Figures 3A-C and 4).^{15,16}

Could there have been an intersection of paths or even collaboration between Colton and Barnum, both involved with laughing gas

Fig. 1. Colton's first laughing gas show in New York City was on March 19, 1844. The advertisement is from page 4 of the *New York Daily Tribune*, March 16, 1844. It explains that Colton intends to bring the practice of inhaling nitrous oxide, which he had so far limited to the privileged medical students, to mass entertainment. The text reads: A GRAND EXHIBITION of the effects produced by inhaling Nitrous Oxide, EXHILARATING OR LAUGHING GAS, will be given in the BROADWAY TABERNACLE, TUESDAY EVENING, March 19. SEVENTY-FOUR GALLONS OF GAS will be made, so that all in the audience who wish can have an opportunity to take it. THIRTY YOUNG MEN have volunteered to take the Gas, so that there may be no delay, in case there should be any hesitation among the audience to come forward. TWO GAS BAGS will be used, so that as soon as the effects have ceased upon one person, another bag may be ready for the next. TWELVE STOUT MEN are engaged to stand upon the stage, (which will be erected for the purpose,) to prevent those who take the Gas, while under its influence, from injuring themselves or others. It is desired that no person will present himself to take the Gas, who believes that he will fight when under its influence. Mr. G. Q. COLTON, who has the honor to present this entertainment, has given two of a similar character in the Medical College in Crosby street, which were intended in duty for the gratification of Students and friends; but finding such an enthusiasm manifested upon the subject, and the Anatomical [sic] Lecture Room being too small to accommodate the assembly, he consented, at the suggestion of many then present, to offer the next to the public in the BROADWAY TABERNACLE. The two previous Entertainments were attended mostly by Gentlemen of the Medical Profession, and their Ladies, (of each about an equal number,) and a more select company was never assembled. It is hoped the next will present the same appearance. To test the purity and safety of the Gas, Mr. Colton will be the first to take it. To give some idea of the effect which the Gas produces when inhaled into the Lungs, I have only to quote from Hooper's Medical Dictionary, under the head of Nitrogen. — Mr. Hooper says: "SIR HUMPHREY DAVY describes the effect it had upon him as follows:—Having previously closed my nostrils and exhausted my lungs, I breathed four quarts of Nitrous Oxide from and into a silk bag. The first feelings were similar to those produced in the last experiment (giddiness) but in less than half a minute the respiration being continued, they diminished gradually, and were succeeded by a sensation analogous to gentle pressure on the muscles, attended by a highly pleasurable thrilling, particularly in the chest and the extremities. The objects around me became dazzling and my hearing more acute. Toward the last inspiration the thrilling increased, the sense of muscular power became greater, and at last an irresistible propensity to action was indulged in. I recollect but indistinctly what followed. I know that my motions were various and violent." The effects above described are tame when compared with those usually manifested—but they are given on account of the name and authority they bear. All this would have been felt or acted out in one-tenth part of the time it has taken to read it. For an account of the effect produced upon Messrs J. Thompson, T. Papale, Stephen Franwick, Robert Kinglake, M. D., Mr. Wedgewood, and Robert Southey, (Poet,) the public are referred to Hooper's Medical Dictionary, as above. Mr. Hooper says of Robert Southey, 'that he once poetically remarked that he supposes the atmosphere of the highest of all possible heavens to be composed of this gas.' From my own observation more than half who take the gas, either dance, sing or laugh. The leading trait in the character is usually brought out. Ladies and those who accompany them, will take seats in the Gallery. Doors open at half past 6—Entertainment to commence at half past 7 o'clock. Tickets 25 cents each, to be had at the principal Book, Music, and Drug Stores in Broadway, and at the door on the Evening of the Entertainment.

A

THE SECOND GRAND EXHIBITION
Of the effects produced by inhaling Nitrous Oxide, or
EXHILARATING OR LAUGHING GAS,
will be given in the
BROADWAY TABERNACLE,
MONDAY EVENING, MARCH 25.
100 Gallons

of Gas will be prepared, (and a much less quantity wasted than at the last exhibition) so that ample opportunity will be afforded for all who wish to take it.

No person will be allowed to stand on the stage except those who take the gas.

3000 TICKETS ONLY will be issued, so that all can be comfortably seated. The public may rely on this.

Twelve Officers are engaged to preserve order.

Those persons who purchased tickets for the last exhibition, and who could not get in, in consequence of the crowd, will be admitted free by exchanging their tickets at the Ticket Office.

To avoid inconvenience from the great crowd at the Ticket Office, it is recommended that all those who can will supply themselves with tickets at the stores where they are for sale, before the evening of entertainment.

It is hoped that the present exhibition, like the first, will be graced by a large proportion of ladies.

When the 3000 tickets are received, the doors will be closed and no more persons admitted.

The Doorkeepers must not be required to receive money, as they cannot receive money and Tickets too—it is hoped that this will be observed.

The entertainment will close by exploding Oxygen and Hydrogen Gas in a caisson prepared for the purpose—proving that water, (which is composed of Oxygen and Hydrogen,) although regarded as the opposite of fire, is composed of the most combustible materials.

MR. G. Q. COLTON,
Who again has the honor to present this entertainment, assures the Ladies and Gentlemen who attended his first, that he will use his utmost endeavors to preserve perfect order and decorum, that not the most fastidious may have occasion to complain. The unavoidable delay, and the slight errors of the first evening will be carefully corrected.

Tickets 25 cents—to be had at Atwill's, Hewett's, Wm. Dubois's, J. Riley's, Millet's, Stoddard & Co.'s Firth & Hall's Music Stores, and at the Bookstores of Saxton & Miles, M. W. Dadd, and C. S. Francis. Also at the door on the evening of entertainment.

Doors open at 6 o'clock—Performance to commence at 7½ o'clock precisely.

B

MR. G. Q. COLTON will give two private entertainments of Nitrous Oxide, Exhilarating or
LAUGHING GAS,
At the Coliseum, No. 450 Broadway, on Wednesday and Thursday Evenings, December 25th and 26th. The object and only object of these entertainments is preparatory to a grand annual entertainment to be given in the Broadway Tabernacle, on Monday Evening, Dec. 30th.

At these two entertainments Mr. Colton will administer the Gas to one hundred gentlemen, and then select from that number thirty-five of the most intellectual, original and eccentric characters to inhale the Gas at the Public Entertainment in the Tabernacle. Mr. Colton's in this way to be able to present an entertainment of such intrinsic attractions that the Tabernacle will be filled to overflowing—as it was at his entertainment last year.

All those who inhale the Gas admitted free. None but gentlemen of the first respectability will be allowed to inhale the Gas. Only a sufficient number to pay expenses will be admitted, beside those who inhale the Gas. Ladies not admitted to the private entertainments.

Tickets 25 cents. The Private Entertainment to commence at precisely 7½ o'clock
d^{ns} 2t^{ec}

C

LAUGHING GAS!

MR. COLTON will give the Ladies an entertainment of Nitrous Oxide or Laughing Gas free, at Clinton Hall, (corner Beekman and Nassau-streets) on Monday and Tuesday (17th and 18th instant) afternoons, between two and four o'clock.

Mr. C.'s entertainments of the same character, in Brooklyn, have been attended by the most respectable people, and he believes they met with universal approbation.

The object of those to be given, as above, is to give great publicity to a public entertainment, to be announced in due season.
m15 2t^{ec}*

D

FREE LECTURE UPON MATRIMONY.—Mr. COLTON repeats his entertainment in Chemistry, including the LAUGHING GAS, at Palmo's Opera House to-morrow evening, Christmas night. As the admission is only 25 cents, the house will be full. Mr. C. offers a free Lecture upon MATRIMONY to Gentlemen and Ladies in the afternoon of the same day, at the same place, commencing at half past 3.

Fig. 2. A, As the first demonstration of laughing gas at the Broadway Tabernacle was a hit, Colton quickly organized a second show, advertised on page 3 of the *New York Herald*, March 22, 1844. The encore featured 100 gal of N_2O , up from 74 for the debut. Ticket sales were limited to 3000. Colton soon brought his laughing gas shows to other New York City venues. B, Colton offered free admission to the Coliseum to patrons who would try the laughing gas (*New York Daily Tribune*, December 26, 1844). C, To publicize larger venues, Colton showed laughing gas for free at Clinton Hall (*New York Daily Tribune*, March 17, 1845). D, At Palmo's Opera House, Colton offered a laughing gas show combined with a lecture on matrimony (*New York Daily Tribune*, December 24, 1845). Like Barnum, Colton was eclectic. Later "Doctor," he was still Mr Colton at this point.

shows in New York City at the same time? Jon Franklin and John Sutherland have suggested that Colton and Barnum interacted in the 1840s.¹⁶ In their account of nitrous oxide anesthesia, Colton, upon meeting Wells, claims to be working "with the backing of P.T. Barnum."¹⁷ Colton met Wells in Hartford, CT, on December 10, 1844, and Colton continued to put on laughing gas shows while Wells pursued nitrous anesthesia.^{3,5,18,19}

It is plausible that Barnum, being always on the lookout for items that appeal to human curiosity, was aware of Colton's successful mass demonstration at the Tabernacle and sought collaboration with Colton. Colton might have approached Barnum for new show venues. Proof of collaboration during the 1840s is elusive. Of note, Barnum shows included actors of markedly short stature, and they may have appeared in the laughing gas shows of Colton (Figure 5). It is

not clear if Colton used those actors in the 1840s, but there was definitely such a collaboration two decades later in 1863 (Figure 5).

Colton at Barnum's Aquarial Gardens in Boston in 1862

Barnum purchased the Boston Aquarial and Zoological Gardens located in the financial district of Boston, MA, in June 1862, making it an extension of the American Museum. From mid-1840s to early 1860s, Colton had traveled the country as a science lecturer, electrical inventor, and real estate investor.^{4,5,18} After failed ventures hurt him financially,¹³ he returned to New England to produce laughing gas shows and was hosted at Barnum's Aquarial Gardens in the autumn of 1862 (Figure 6).²⁰ The aquarium advertisements are the earliest documentation of a business relationship of the two men.

In his autobiography, Colton cited business advice from his esteemed friend.¹³ Colton wrote:

Mr. Barnum then gave me a bit of advice which I think is worthy of being repeated here. As near as I can remember, these were his words. "Let me give you a word of advice. You are going to make some money. As soon as it is known that you have a little spare money, you will have all sorts of schemes offered you—mining stocks, patent schemes, and the like, by which the parties will prove to you on paper that you can make money a great deal faster than in your legitimate business. Now don't touch a thing of the kind say No to every such thing. As soon as you get any spare money put it into government bonds, or real estate, and never mind the small interest." That advice has saved me thousands of dollars, and would have saved me much more if I had strictly followed it. In every instance in which I disregarded this advice I lost money. Mr. Barnum may be called "a humbug," but he had a clear head for making and saving money.

Possibly with financial backing of Barnum,^{13,21,22} Colton established a thriving dental practice in Manhattan in 1863. The Colton Dental Association featured painless tooth extractions under nitrous.^{4,6,7,13}

"Doctor" Colton stressed the no-humbug nature of nitrous anesthesia. Yet, he insisted for decades that the oxygen atoms of N₂O support life in the manner of those of O₂, perhaps even better.^{23–28} Indeed, he alleged that medical patients in respiratory distress should get nitrous instead of oxygen. At least once, he sent some nitrous oxide over to the home of a medical patient who was gasping *in extremis*, fighting for breath. He reported the "case in point" in 1893 as follows.²³

When Mrs. Peter Cooper was dying, many years ago [1869], she was suffering from partial congestion of the lungs. She had not strength to draw sufficient air into the lungs to supply the necessary oxygen to the blood and she was gasping. The physicians in attendance sent over for Prof. Doremus [Robert Ogden Doremus, M.D., 1824–1906] to get some oxygen to throw into the room. Prof. Doremus told them it was not oxygen they were wanting, but it was the nitrous oxide, laughing gas. They then went to my office and obtained 180 gallons of gas in large India rubber bags. The whole of this was pressed out into Mrs. Cooper's room and it afforded immediate relief. Mr. Hewitt told me it was apparent to all present that the effect of the gas was to lengthen Mrs. Cooper's life by several hours and relieve her of all distress in breathing.

The gasping patient, Mrs Peter Cooper, was Sarah Bedell Cooper, the mother of a mayor of New York City and the mother-in-law of another one, Abram S. Hewitt. Her husband Peter Cooper (1791–1883) was an alderman of New York City, the 1876 US presidential candidate of the Greenback Party, and the founder of Cooper Union for the Advancement of Science and Art. A Cooper-Hewitt Museum became part of the Smithsonian Institute. Colton's dental practice was located at Room 19 of Cooper Union.²⁹

A

AMERICAN MUSEUM—Corner of Broadway and Ann-street.
P. T. BARNUM.....Proprietor.
F. HITCHCOCK.....Manager.
Every Day and Evening This Week!
COMMENCING MONDAY, Nov. 11th, 1844.
GRAND PERFORMANCES
Every evening, at 7 o'clock, and Wednesday and Saturday afternoons at 3.
The Manager has engaged the Celebrated
KENTUCKY MINSTRELS!
MONS. CHECKENI,
the Dancer and Pantomimist, formerly of the Ravel Family.
THE INFANT CHILDREN,
LA PETITE ELISE and **LA PETITE MEE,** only four and six years old, the most accomplished juvenile Dancers and Pantomimists of the age. They will appear in a laughable and amusing Comic Ballet, composed expressly for them; and also in several admired and favorite dances.
LAUGHING GAS
will be administered at each performance, and all its Mirthful Influences exhibited, for the first time at this establishment.
Miss ADAIR, the Vocalist.
Mr. B. WILLIAMS, the Irish Comedian, &c.
Beautiful engraved Likenesses of **QUEEN VICTORIA,** Prince Albert, Queen Adelaide, and Dutchess of Kent.
☞ Tickets 25 cents—children under ten years 12½. n11

B

AMERICAN MUSEUM—Corner of Broadway and Ann-street.
EVERY DAY AND EVENING THIS WEEK!
Every Evening at 7½ o'clock, and Wednesday and Saturday Afternoons at 3 o'clock.
LAUGHING GAS, by a learned Chemist.
MISS ORVILLE, a charming Vocalist.
Mrs. WESTERN, a talented artist.
LA PETITE CARLINE, a graceful Danseuse.
MADAME ROCKWELL, Fortune-Telling Petrologist.
GREAT WESTERN, unequalled Low Comedian.
Mr. COLE, the wonderful Contortionist.
The learned and talented **DOG BILLY.**
Mr. W. J. HAMILTON, Ballad Singer.
COMIC LECTURE ON ANIMAL MAGNETISM, with laughable experiments, by Great Western.
NEW AND ORIGINAL COMIC MELANGE, by Mr. and Mrs. Western and Mr. Hamilton.
Admission 25 cents—Children under 10, 12½ cents. m3

C

A splendid bill of attractions is offered to-day at the American Museum—one that will delight and amuse both old and young. The Manager has engaged a talented list of Artists, the Laughing Gas, Dissolving Views, &c. and will give a splendid performance at 7½ o'clock P. M. beside which, he has re-engaged the Giant and other rare novelties for to-day, to be seen at all hours. Those who have time and money can spend a few hours most agreeably at the Museum.

Fig. 3. A, At Barnum's American Museum in New York City, laughing gas and "all its Mirthful Influences" were exhibited "for the first time" there on November 11, 1844 (*New York Daily Tribune*, November 11, page 2). The advertisement reads: AMERICAN MUSEUM - Corner of Broadway and Ann-street [sic]. P. T. Barnum -----Proprietor. F. Hitchcock -----Manager. Every Day and Evening This Week! COMMENCING MONDAY Nov. 11th, 1844. GRAND PERFORMANCES Every evening, at 7 o'clock, and Wednesday and Saturday afternoons at 3. The Manager has engaged the Celebrated KENTUCKY MINSTRELS! MONS. CHECKENI, the Dancer and Pantomimist, formerly of the Ravel Family, THE INFANT CHILDREN. LA PETITE ELISE and LA PETITE MEE, only four and six years old, the most accomplished juvenile Dancers and Pantomimists of the age. They will appear in a laughable and amusing Comic Ballet, composed expressly for them; and also in several admired and favorite dances. LAUGHING GAS will be administered at each performance, and all its Mirthful Influences exhibited, for the first time at this establishment. Miss ADAIR, the Vocalist. Mr. B. WILLIAMS, the Irish Comedian &c. Beautiful engraved Likenesses of QUEEN VICTORIA, Prince Albert, Queen Adelaide, and Dutchess [sic] of Kent. ☞ Tickets 25 cents - children under ten years 12½. B, The conductor of the laughing gas shows at Barnum's American Museum is identified only as "a learned Chemist" (*New York Daily Tribune*, March 3, 1845). Of note, the program also featured "animal magnetism" (hypnotism).¹⁵ The text reads: AMERICAN MUSEUM - Corner of Broadway and Ann-street [sic]. EVERY DAY AND EVENING THIS WEEK: Every Evening at 7½ o'clock, and Wednesday and Saturday Afternoons at 3 o'clock. LAUGHING GAS, by a learned Chemist. MISS ORVILLE, a charming Vocalist. Mrs. Western, a talented artist. LA PETITE CARLINE, a graceful Danseuse. MADAME ROCKWELL, Fortune-Telling Petrologist. GREAT WESTERN, unequalled Low Comedian. Mr. COLE, the wonderful Contortionist. The learned and talented DOG BILLY. Mr. W. J. HAMILTON, Ballad Singer. COMIC LECTURE ON ANIMAL MAGNETISM, with laughable experiments, by Great Western. NEW AND ORIGINAL COMIC MELANGE, by Mr. and Mrs. Western and Mr. Hamilton. Admission 25 cents - Children under 10, 12½ cents. C, Barnum's American Museum in New York City continued to feature laughing gas in 1846 (*New York Daily Tribune*, January 5). The text reads: A splendid bill of attractions is offered to-day at the American Museum - one that will delight and amuse both old and young. The Manager has engaged a talented list of Artists, the Laughing Gas, Dissolving Views, &c. and will give a splendid performance at 7½ o'clock P. M. beside which, he has re-engaged the Giant and other rare novelties from to-day, to be seen at all hours. Those who have time and money can spend a few hours most agreeably at the Museum.

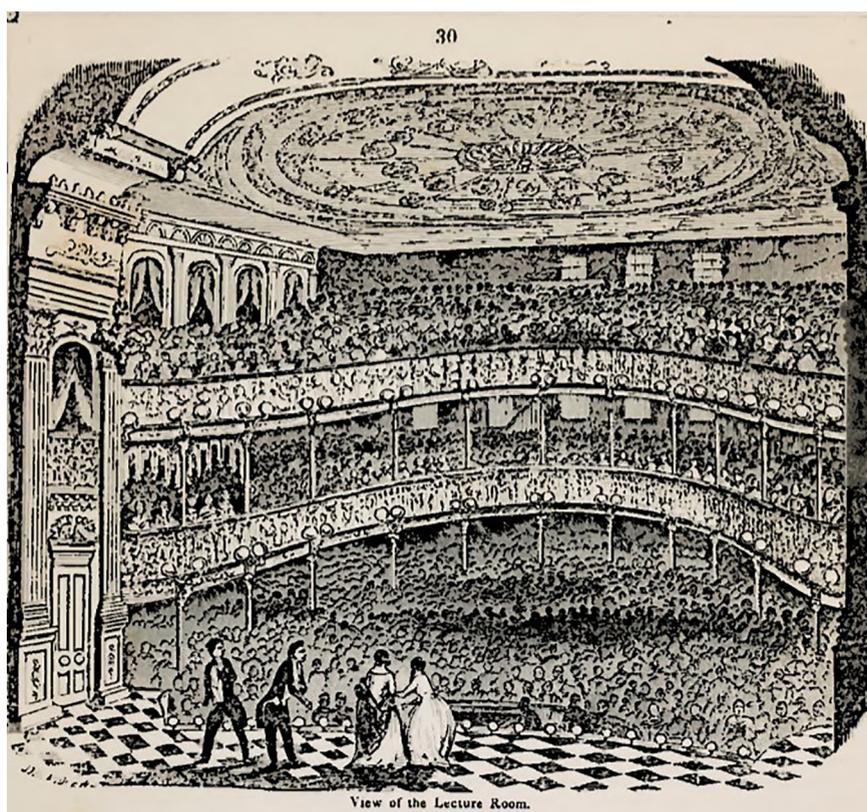


Fig. 4. The “Lecture Room” or theater of Barnum’s American Museum. Laughing gas shows were well attended.¹⁶

Barnum on Humbug

Barnum called himself the Prince, sometimes the King, of Humbug. He was caricatured as such an insect in 1851 (Figure 7).^{30,31}

In 1866, he wrote the book on humbug (Figure 8).³² *Humbugs of the World* proposes that humbug can be either meritorious or disgraceful. Barnum plausibly felt that his own humbug activities were obvious entertainments of good value and fair price. On page 34, his motto is

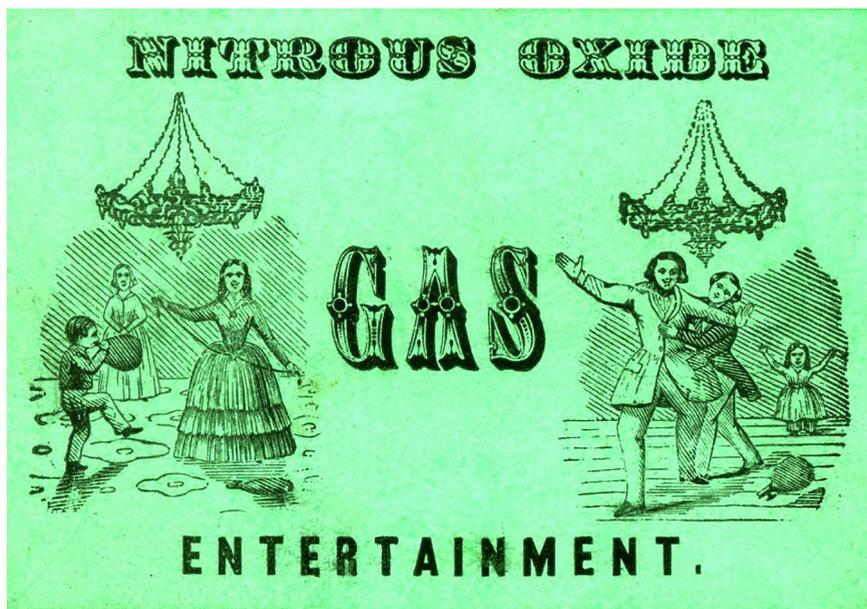


Fig. 5. According to Lindsay Turley (Director of Collections), “Colton” is handwritten on the other side of this advertising card (or admission ticket) preserved by the Museum of the City of New York. The card is indicated in the museum’s New York Social Events Collection to be from circa 1846 (<https://blog.mcny.org/2011/09/13/showman-or-scientist/>). However, Turley plausibly proposes that the small boy may represent Commodore George W.M. Nutt (1848-1888), who was noted by the *The New York Times* to be performing with Colton on 8 April 1863. The “Commodore” had been so dubbed in 1861 by his employer Barnum, who famously parlayed the markedly short adult height of Nutt into theatrical stardom. If in fact the card is from the 1840s instead of the 1860s, the small boy might have been portrayed by “General” Tom Thumb (Charles S. Stratton, 1838-1883). Thumb also had markedly short stature and began to work for Barnum while still a child. The card depicts a small boy transformed into a large man (and a woman transformed into a small girl) by the action of inhaled nitrous oxide. The card calls to mind *Alice’s Adventures in Wonderland* by Lewis Carroll (Charles L. Dodgson, 1832-1898), but that story did not appear until 1865.

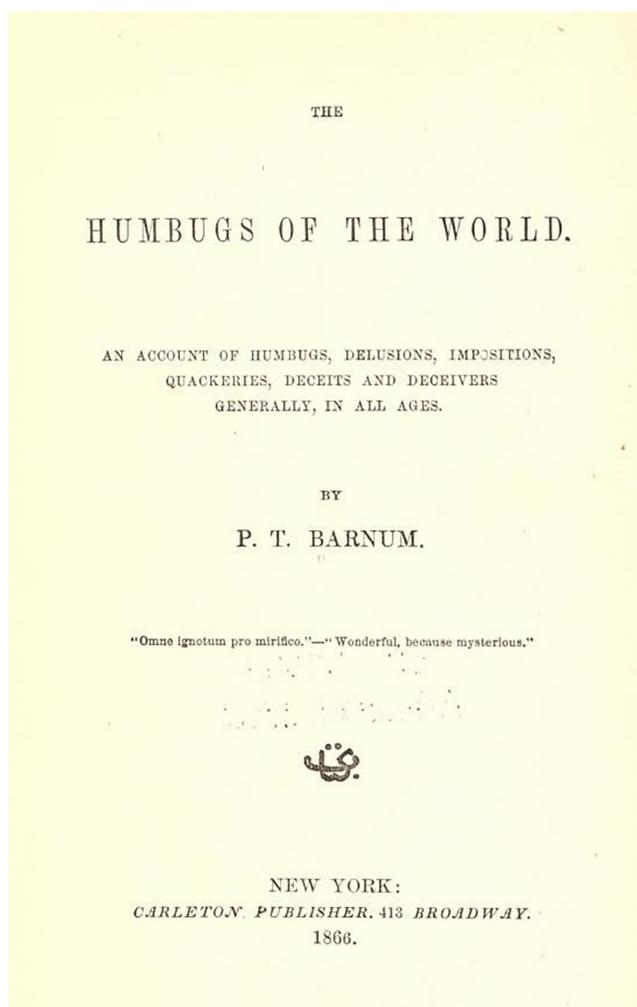


Fig. 8. Title page of Barnum's treatise on humbug.³² This "account of humbugs, delusions, impositions, quackeries, deceits and deceivers generally, in all ages," is freely available as an online file. Barnum felt that the term *humbug* had both positive and negative connotations. Barnum recognized the power of the placebo,³¹ and Barnum antics prompted the term *Barnum effect* in psychology.

the old stand," however—to quote another characteristic French anecdote—and being a woman of ready and decisive mind, she very quietly filled the vials with water from the river Seine, and lived respectably on the proceeds, finding, to her great relief, that the eye-water was just as good as ever. At last however, she found herself about to die, and under the stings of an accusing conscience she confessed her trick to her physician, an eminent member of the profession. "Be entirely easy, Madam," said the wise man; "don't be troubled at all. You are the most innocent physician in the world; you have done nobody any harm."

But however mysterious is nature, however ignorant the doctor, however imperfect the present state of physical science, the patronage and the success of quacks and quackeries are infinitely more wonderful than those of honest and laborious men of science and their careful experiments.

Barnum Effect

According to the *Oxford English Dictionary*, "the word Barnum was in use from the mid 19th century as a noun in the sense 'nonsense,

humbug.'" The *Oxford* also offers *Barnumize* and *Barnumesque* as a verb and an adjective. The popular appeal of humbug prompted the term *Barnum effect* in psychology.^{34–48} The name was coined in 1956 by American psychologist Paul Meehl (1920–2003) because of the Barnum motto: "we have something for everybody."

The psychological term arose when subjects accepted utterly non-specific and vague personal assessments after taking a supposed test of individual personality. Similarly, fortune telling is given credence when properly staged. Any manifestation of human gullibility might be ascribed to the eponymous effect, which may be akin to the placebo response. It is also a clue to the power of advertising. Barnum's shows at the American Museum included fortune telling and animal magnetism (hypnotism), which are applications of the Barnum effect (Figure 3B).¹⁵

Painless Parker

Edgar Rudolph Randolph Parker (1872–1952) was a Canada-born Philadelphia-trained dentist dubbed by Arden G. Christen to be the P.T. Barnum of dentistry (Figure 9).^{49–53} Although almost half a century apart in time, Parker and Barnum shared qualities as businessmen and showmen. Indeed, Parker had the spirit of humbug, and there is a link to Barnum. In the 1890s, Parker joined forces with William Beebe (-1902) in Brooklyn, NY. Beebe had formerly been a publicity agent for Barnum. At the instigation of Beebe, and using Barnum's autobiography as a guide, Parker understood the importance of branding and the value of entertainment. Beebe designed saturation advertising campaigns for Parker and made him perhaps the most sensational health care advertiser of all time, certainly of his time.⁵⁴ Parker moved to California in 1906 and acquired a Barnumesque circus in 1913. Dentist and ringmaster, he performed dental extractions in a sideshow. The loud brass band and circus performances distracted patients and perhaps masked their occasional cries. His favorite anesthetic was a dilute solution of cocaine. American surgeon William S. Halsted (1852–1922) had diluted commercial 4% cocaine in pioneering work in the 1880s, but Parker implied that he used a special concoction by naming the product *hydrocaine*. He often demonstrated painless dental extractions on the street, but shills acting as patients sometimes assisted him. One of his accomplices was unwitting; showman Parker painlessly extracted teeth from an aged lion that had become naturally toothless.⁵⁵ Although frowned upon early on by his contemporary dental authorities for being "unethical" by skewing competition with heavy advertising and practicing in states where he did not hold license, Parker became wildly successful.⁵⁴ In 1948, he oversaw more than 70 dentists in 19 dental offices in California, 3 in Oregon, 4 in the state of Washington, and 1 in Vancouver, British Columbia.

Conclusion

Humbug is a tricky business. Barnum maintained that medical humbug could be deplorable quackery, but he understood that medical placebos have benefit. He felt that his own humbug was valuable entertainment at a reasonable price. The claim is debatable from the vantage of today. For instance, laughing gas shows indicated that recreational public intoxication is a harmless pastime that is suitable for witness by children. In the 1850s, Barnum was a temperance lecturer, so it is incongruous that he allowed laughing gas shows in his Boston Aquarial Garden in 1862.

"Doctor" Colton proved the possibility of painless dentistry. Still, he may have caused harm. He touted his daily recreational use of nitrous and maintained that the gas is healthful and supports life in the manner of oxygen, thus justifying hypoxic anesthesia practice.^{23,24}

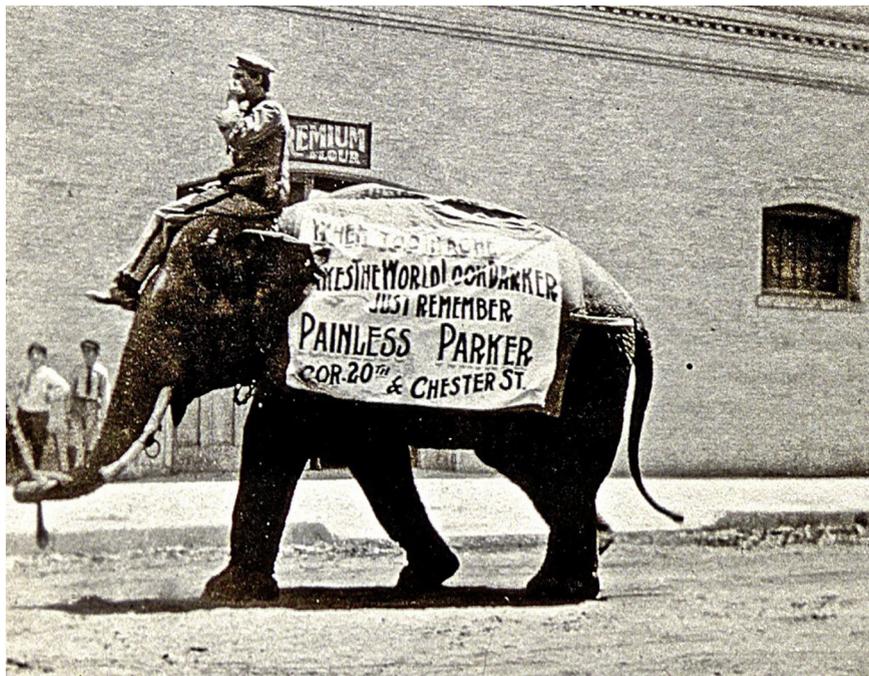


Fig. 9. One of a string of at least four Indian elephants advertising a dental clinic of Painless Parker in Bakersfield, CA, circa 1913. The draped sign reads, “When Toothache Makes the World Look Darker, Just Remember Painless Parker.” Parker himself sometimes donned regalia and bestrode a tusker. Jane (Parker) Hewson, a descendent of the remarkable showman, entrusted a cache of Parker images and writings to Drs. Peter M. Pronych and Arden G. Christen, who kindly share this image.^{52,53}

Dr. Parker was a licensed dentist who advocated dental hygiene and brought affordable care to countless patients. Many of his antics were deemed unprofessional, and he blatantly engaged in Barnum-esque false advertising. However, after he legally changed his given name from Edgar, no one could say he was not truly Painless.^{50,51,53}

References

- Davy H. *Researches, Chemical and Philosophical; Chiefly Concerning Nitrous Oxide: Or Dephlogisticated Nitrous Air, and Its Respiration*. London, UK: J. Johnson; 1800.
- Wright AJ. Davy comes to America: Woodhouse, Barton, and the nitrous oxide crossing. *J Clin Anesth* 1995;7(4):347-355.
- Wright AJ. Nitrous oxide demos fueled fortunes of two 19th-century capitalists. *Anesthesiol News* 2011;37(10):84.
- Smith GB, Hirsch NP, Gardner Quincy Colton: pioneer of nitrous oxide anesthesia. *Anesth Analg* 1991;72(3):382-391.
- Wright AJ. Gardner Quincy Colton's 1848 visit to Mobile, Alabama. *Proc Hist Anaesth Soc* 1999;25:31-47.
- Bause GS. Gardner Quincy Colton, a man of mark. *Anesthesiology* 2012;116(2):457, <https://doi.org/10.1097/ALN.0b013e31824a0009>.
- Colton GQ. History of general anesthesia - part III: address by Gardner Q. Colton at the Wells Memorial Celebration in Hartford, 1894. *J Am Dent Soc Anesthesiol* 1960;7(5):8-9.
- Antiquack. Surgical humbug. *Lancet* 1826;5(127):646-647, [https://doi.org/10.1016/S0140-6736\(02\)92183-5](https://doi.org/10.1016/S0140-6736(02)92183-5).
- Haridas RP. Horace Wells' demonstration on nitrous oxide in Boston. *Anesthesiology* 2013 Nov;119(5):1014-1022, <https://doi.org/10.1097/ALN.0b013e3182a771ea>.
- Bause GS. Horace Wells' "humbug affair" occurred at Massachusetts General Hospital? Humbug! *Anesthesiology* 2013 Nov;119(5):1009-1010, <https://doi.org/10.1097/ALN.0b013e3182a76fa6>.
- Wolfe RJ. *Tarnished Idol: William Thomas Green Morton and the Introduction of Surgical Anesthesia*. Norman: San Anselmo, CA; 2001.
- O'Donnell T. Moral principles of anesthesia: a re-evaluation. *Theol Stud* 1960;21(4):626-633.
- Colton GQ. *Boyhood and Manhood Recollections: The Story of a Busy Life*. New York, NY: A.G. Sherwood & Co.; 1897.
- Willis NP. Diary of town trifles. *The New Mirror*; 1844, April 6:8-9.
- Harris N. *Humbug: The Art of P.T. Barnum*. Little, Brown: Boston, MA; 1973.
- Barnum PT. *Barnum's American Museum*. New York, NY: William Van Norden and Frank Leslie; 1850.
- Franklin J, Sutherland J. *If I Die in the Service of Science: The Dramatic Stories of Medical Scientists Who Experimented on Themselves*. New York, NY: Authors Choice Press; 2003.
- Cuadrado FF, Alston TA, Gardner Q. Colton publicly demonstrated chloroform for surgery in his eclectic exhibitions of 1848. *J Anesth Hist* 2017;3(1):35-36, <https://doi.org/10.1016/j.janh.2016.06.004>.
- Yang QH, Alston TA. The perfect and famous anesthetic known as methyl in Boston in 1895. *J Anesth Hist* 2018;4(2):115-122, <https://doi.org/10.1016/j.janh.2018.01.006>.
- Ryan J. *The Forgotten Aquariums of Boston*. Third revised ed. Boston, MA: New England Aquarium; 2011:13a.
- McManus J. *Notes on the History of Anesthesia: The Wells Memorial Celebration at Hartford, 1894, Early Records of Dentists in Connecticut*. Clark & Smith: Hartford, CT; 1896.
- Roddy WA. Nitrous oxid [sic] in extraction: read before the St. Louis Dental Society, May 7, 1901. *Dental Digest* 1902;8(2):96-100.
- Colton GQ. Nitrous oxide vs. oxygen. Some curious mistakes made by the medical profession. *NY Times*; 5 Jun 1893:3.
- Colton GQ. Laughing-gas—an anaesthetic. *NY Times*; 12 Mar 1864:10.
- Colton GQ. Nitrous oxide gas. *NY Times*; 26 Mar 1864:5.
- Colton GQ. A card. *NY Times*; 13 Jun 1864:5.
- Colton GQ. A query answered. *Colton Dental Association*. *NY Times*; 18 Dec 1864:5.
- Alston TA. Early misconceptions about nitrous oxide, an "invigorating" asphyxiant. *J Clin Anesth* 2010;22(1):59-63, <https://doi.org/10.1016/j.jclinane.2008.11.015>.
- Bause G. Awnings before yawnings: advertising anesthetic stupor at "the Cooper". *Anesthesiology* 2017;127(11):746, <https://doi.org/10.1097/ALN.0000000000001903>.
- Stephens HL. *The Comic Natural History of the Human Race*. Philadelphia, PA: S. Robinson; 1851.
- Andronik CM. *Prince of Humbugs: A Life of P. T. Barnum*. New York, NY: Atheneum; 1994.
- Barnum PT. *The Humbugs of the World*. Carlton: New York, NY; 1866.
- Beecher HK. The powerful placebo. *J Am Med Assoc* 1955;159(17):1602-1606.
- Wyman AJ, Vyse S. Science versus the stars: a double-blind test of the validity of the NEO five-factor inventory and computer-generated astrological natal charts. *J Gen Psychol* 2008;135(3):287-300, <https://doi.org/10.3200/GENP.135.3.287-300>.
- Andersen P, Nordvik H. Possible Barnum effect in the five factor model: do respondents accept random neo personality inventory-revised scores as their actual trait profile? *Psychol Rep* 2002 Apr;90(2):539-545.
- Layne C. Sex and the Barnum effect: rationality versus helpfulness. *Psychol Rep* 1999;85(1):187-188.
- Prince RJ, Guastello SJ. The Barnum effect in a computerized Rorschach interpretation system. *J Psychol* 1990;124(2):217-222.
- Cash TF, Mikulka PJ, Brown TA. Validity of Millon's computerized interpretation system for the MCMI: comment on Moreland and Onstad. *J Consult Clin Psychol* 1989;57(2):311-314.
- Handelsman MM, McLain J. The Barnum effect in couples: effects of intimacy, involvement, and sex on acceptance of generalized personality feedback. *J Clin Psychol* 1988;44(3):430-434.
- Dutton DL. The cold reading technique. *Experientia* 1988;44(4):326-332.

41. DiClementi JD, Handelsman MM. Effects of perceived sophistication and test validity on acceptance of generalized feedback. *J Clin Psychol* 1987;43(3): 341-345.
42. Snyder CR, Newburg CL. The Barnum effect in a group setting. *J Pers Assess* 1981;45(6):622-629.
43. Michels PJ, Layne C. Inventory responding models people's acceptance of feedback 'derived' from tests and from interviews. *J Pers Assess* 1980;44 (3):302-306.
44. Halperin KM, Snyder CR. Effects of enhanced psychological test feedback on treatment outcome: therapeutic implications of the Barnum effect. *J Consult Clin Psychol* 1979;47(1):140-146.
45. Layne C. Relationship between the "Barnum effect" and personality inventory responses. *J Clin Psychol* 1978;34(1):94-97.
46. Snyder CR, Shenkel RJ, Lowery CR. Acceptance of personality interpretations: the "Barnum effect" and beyond. *J Consult Clin Psychol* 1977;45(1):104-114.
47. Rosen GM. Effects of source prestige on subjects' acceptance of the Barnum effect: psychologist versus astrologer. *J Consult Clin Psychol* 1975;43(1):94.
48. Dmitruk VM, Collins RW, Clinger DL. The "Barnum effect" and acceptance of negative personal evaluation. *J Consult Clin Psychol* 1973;41(2):192-194.
49. Christen AG, Edgar Rudolph "Painless" Parker (1872-1952). The "P.T. Barnum" of dentistry. Part I: Canadian beginnings. *J Indiana Dent Assoc* 1986;65(4):9-11.
50. Christen AG, Edgar Rudolph "Painless" Parker (1872-1952). The "P.T. Barnum" of dentistry. Part II: Parker and American dentistry. *J Indiana Dent Assoc* 1986;65(5):13-17.
51. Pronych PM, Christen AG. *Early Adventures of Painless Parker*. Hantsport, Nova Scotia: Lancelot Press; 1996.
52. Pronych PM, Christen AG. *Painless Parker's Scrapbook*. Apple iBook: Cupertino, CA; 2015.
53. Pronych PM, Christen AG. *Painless Parker: This Is My Story*. Apple iBook: Cupertino, CA; 2015.
54. Wynbrandt J. *The Excruciating History of Dentistry: Toothsome Tales & Oral Oddities From Babylon to Braces*. New York, NY: St. Martin's Press; 2015.
55. Kleinman E. "Painless" Parker. *Am J Orthod Dentofacial Orthop* 2016;149(1):6. <https://doi.org/10.1016/j.ajodo.2015.11.007>.