

Bob Frishman

‘American Superiority’ at the 1851 Great Exhibition

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The June 2026 issue contains as usual 148 pages, and includes these articles:

‘Langley Bradley’s ‘lost’ Westminster turret clock resurrected’, by Warwick Rodwell

‘A hidden monument for Christiaan Huygens’, by Stefanie van den Steen

‘Harlow and Davenport eight-day longcase clock movements’, by John A. Robey

‘ ‘Knib’s Dyal went five minutes too fast’: an overlooked calculation of public time in 1692’, by James Nye

‘ ‘American Superiority’ at the 1851 Great Exhibition’, by Bob Frishman

‘The horizontal turret clock in Diderot and d’Alembert’s *Encyclopédie*’, by Denis Roegel

‘Truth and Time: an eighteenth-century night clock’, by Sunny Dzik and Leighton Gillibrand

‘Thomas Browne’s only signed lantern clock and the origin of the Bristol School’, by Lee Borrett,

'American Superiority' at the 1851 Great Exhibition

Bob Frishman*

This article is an edited and somewhat abridged version of the Dingwall Beloe Lecture delivered on 28 October 2025 at the British Museum, and which was illustrated with 147 images. Among more than six hundred American exhibitors in London's 1851 Great Exhibition's Crystal Palace were forty that were featured in an 1852 lithograph and accompanying book to assert, in response to dismissive English criticism and mockery, that these products in particular demonstrated 'American Superiority'. America earned five top Council Medal awards, including one for an 'Astronomical Clock & Spring Governor' by Bond & Son of Boston, that was praised as 'the most wonderful achievement of science which the world has seen since the days of Newton'. Cheap Yankee clocks won no prizes, and were overshadowed by hundreds of refined British horological displays, but already were flooding the English Isles.

The 'Great Exhibition of the Works of Industry of All Nations' was officially opened by Queen Victoria. It was attended by 25,000 of England's elite in London's Hyde Park, on 1 May 1851 (Fig. 1). This story begins on 17 September 2016 when, at an auction of 'printed and manuscript Americana' at Swann Galleries in New York City, I was able to acquire a rare, hardcover book, published in 1852 in Philadelphia, entitled *American Superiority at the World's Fair*¹ (Figs 2 and 3). Soon after, I discovered a copy of the even more rare chromo-lithographic print, issued to accompany that book, in the collection of the Boston Athenaeum, one of America's earliest subscription libraries, founded in 1807 (Fig. 4). Incidentally, among the collection of antique clocks at the Athenaeum is their English astronomical regulator, standing near the reading room, which is by T. Cooke of York (Fig. 5).

Both the book and the lithograph have in their titles the words 'American Superiority', as does my lecture. I understand that this might sound controversial, or worse, to us here today. Four decades ago, for ten years, I worked in Washington, D.C., in the United States House of Representatives. I know politics. My talk today has nothing to do with today's politics.

Americans were aspiring to 'Superiority' in all manners of industrial and agricultural goods, especially as they addressed sharp criticism of our country's offerings at the Great Exhibition in 1851. As Oli Cooke recently pointed out to me as an American nearly two centuries later, perhaps we still are a bit miffed.

The Boston Athenaeum does not own a copy of the *American Superiority* book, but it does own a second very rare book, of which fortunately I now own an original as well: *Proceedings of Mr G. Peabody's Parting Dinner*² (Fig. 6). It recounts the October

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1. *American Superiority at the World's Fair Designed to Accompany A Chromo-Lithographic Picture, Illustrative of Prizes awarded to American Citizens at the Great Exhibition, A Compilation for Public and Private Sources*, by Charles T. Rodgers, of Louisiana. Philadelphia: Published by John J. Hawkins, 1852, 148 pages. A digitized copy from the Library of Congress is available for download at <https://archive.org/details/americansuperior00rodg/page/n189/mode/2up>

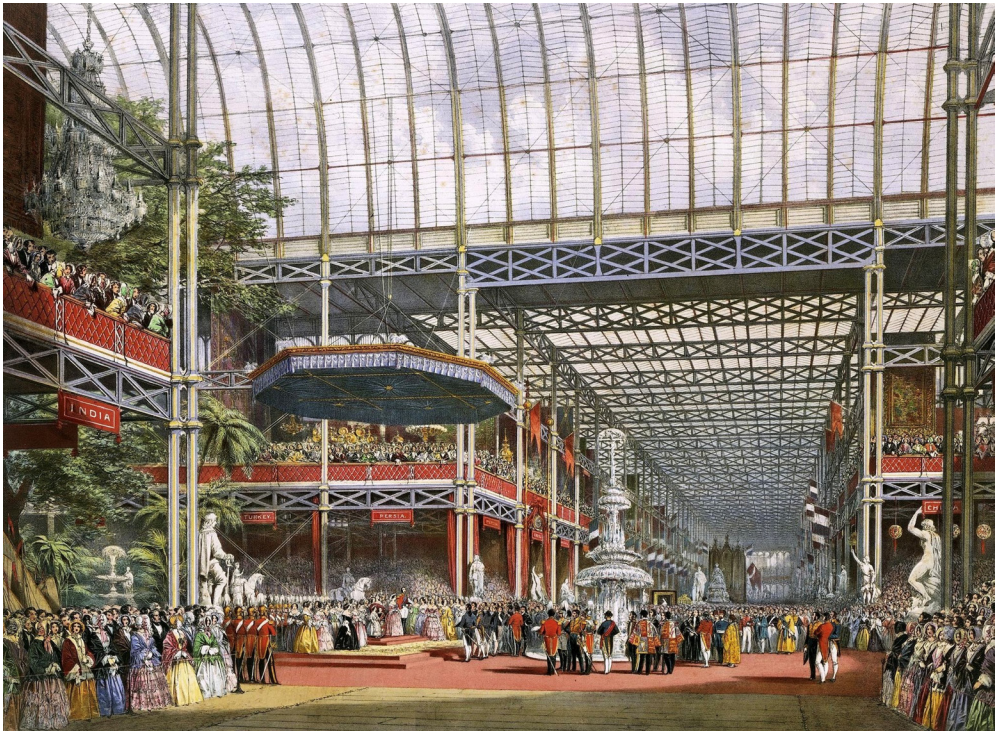


Fig. 1. Plate from *Dickinsons' Comprehensive Pictures of The Great Exhibition of 1851*, from the *Originals Painted for H.R.S. Prince Albert* by Messrs. Nash, Haghe, and Roberts, R.A., London: 1854.

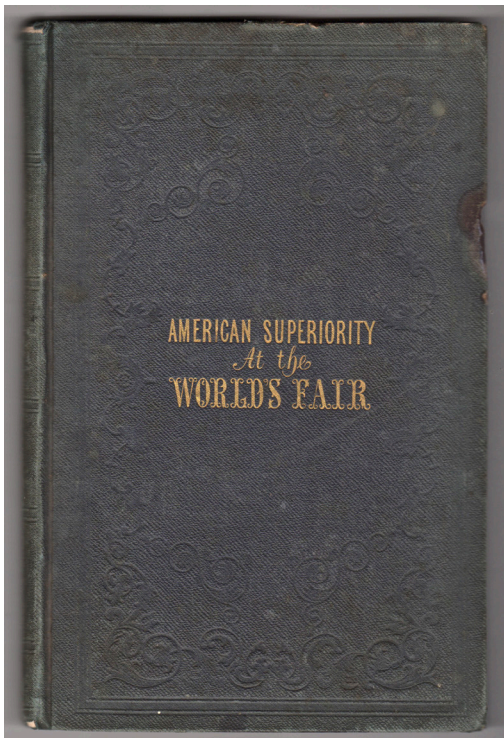


Fig. 2. Cover of *American Superiority at the World's Fair*, 1852, author's collection.

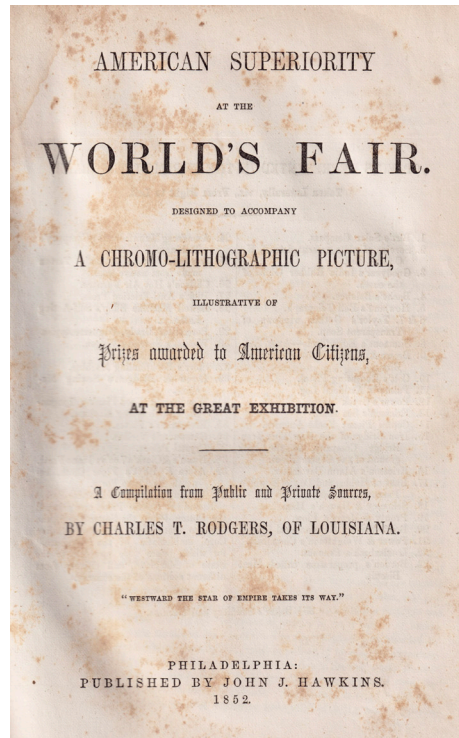


Fig. 3. *American Superiority at the World's Fair*, title page.

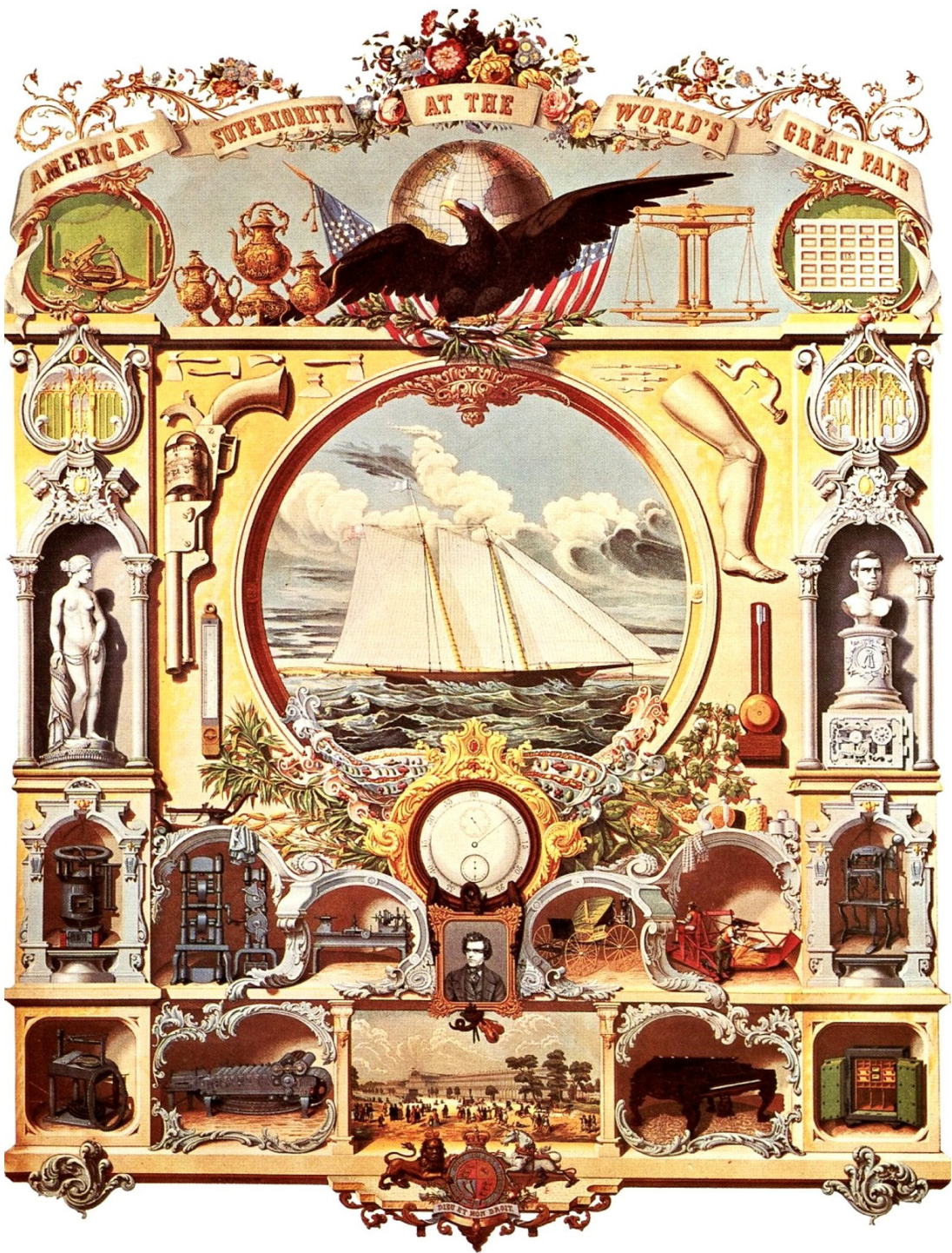


Fig. 4. Chromo-lithograph, *American Superiority at the World's Great Fair*, 1852, The Larry Zinn World's Fair Collection, New York City. For identification of the objects depicted, see Fig. 18. Items discussed or mentioned in this article are: 10. Colt's Repeating pistol, 12. Power's Greek Slave, 14. Centre Piece: Yacht America, 20. Bond & Son's Astronomical Clock, 29. Portrait of Brady, Daguerreotypist, and 31. McCormick's Reaper.



Fig. 5. Astronomical regulator by T. Cooke, York, standing on the second floor of the Boston Athenaeum. Author photo.

twenty-seventh dinner at the London Coffee House, Ludgate Hill, just a fortnight after the exhibition's closing ceremony. The host was Mr. George Peabody, an American banker living in London.

2. *An Account of the Proceedings at the Dinner Given by Mr. George Peabody to the Americans Connected with the Great Exhibition at the London Coffee House Ludgate Hill on the 27th October 1851*, London: William Pickering, 1851.

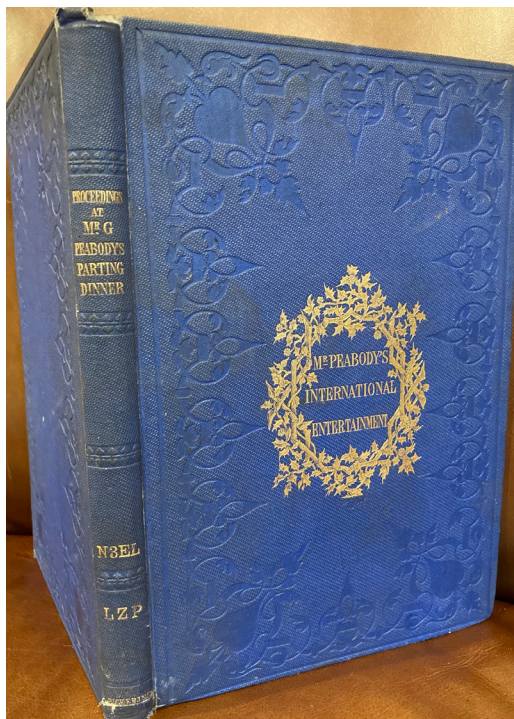


Fig. 6. *Proceedings at Mr. G. Peabody's International Entertainment*, London: 1851, Boston Athenaeum N3EL-LZP. Author photo.

The book contains a list of the banquet's 140 guests. With flowery speeches and multiple toasts, these men were all present to honour the American exhibitors, and the English luminaries including Sir Joseph Paxton and Sir Charles Fox who were among those who made the exhibition so remarkably successful. A loving cup was passed, as it has been at the Clockmakers' Company livery dinners that I have been fortunate to attend.

Unlike every other nation represented, the government of the United States provided no leadership or funding for their exhibitors, believing that these should be left to the states and to private firms. A navy frigate, the *St. Lawrence*, was provided to transport goods – ones that made it to the dock in time – but George Peabody needed to personally provide fifteen thousand dollars to transport the exhibits to London, just six weeks before the exhibition opened to the public.

Admittedly, I had an interest in nineteenth-century world's fairs before the Swann auction.



Fig. 7. Main Exhibition Building, International Exhibition of Arts, Manufactures, and Products of the Soil and Mine, American Centennial World's Fair, Philadelphia, 1876.

The 1876 American Centennial exhibition in Philadelphia (Fig. 7) was where the Waltham Watch Company so badly alarmed the Swiss watchmakers. The 1889 exhibition in Paris boasted imposing horology galleries (Fig. 8). Chicago's 'White City' in 1893 was equally grand, and packed with exhibitors.

If, by some miracle, during what's left of my lifetime, we witness the invention of time travel – a *special branch* of horology, I could say – my first destination, without hesitation, would be London in 1851. I would visit the Great Exhibition even more often than Queen Victoria did, to join six million other people, from across the globe. Instead, I must be there only through my mind's eye. I study the official catalogues, the multitudes of press reports, and the books published between then and now. I seek and collect images, from that time, that can transport me, in my imagination, to the Crystal Palace, as it quickly became known; a wonder of a building enclosing fourteen thousand exhibitors, and ten miles of galleries. I have collected dozens of images of the building's interior, that can allow one to imagine walking beneath those two hundred and ninety-three thousand panes of hand-blown clear glass. The last people who did so, were there in November 1936, before the enlarged Crystal Palace, relocated to Sydenham, burned to the ground one night so brightly that Brighton residents could see the glow.

1851 was too soon after the dawn of photography for there to be a rich photographic record of the fair. Many makers of daguerreotypes were present, and some scholars claim that the Americans excelled at



Fig. 8. Entrance to the horology display in Paris at the Great Hall of Honour. Photogravure, Plate 15 from Glucq, *Album de l'Exposition 1889*. Author collection.

this the most. Mathew Brady, a top prize winner, is at the lithograph's centre (Fig. 9), along with the Bond clock that I will discuss later. Camera exposure times were much too long to capture the bustling throngs. Photographs inside the building had to be taken after closing, when no visitors remained. The French daguerreotype shown here (Fig. 10) is a fine example, and a few of them in 3D still exist, as well.

The Dingwall Beloe Lectures are intended to 'make new contributions to our understanding of the history of horology, at an international level'. As much as I would love to dwell on early photography, and on the tens of thousands of objects displayed that were not horological, I will focus on the timekeepers. There were hundreds, organized and judged under Class Ten.

Some of those clocks were American. But I cannot completely ignore the other American products that, to the authors of my rare book and to the artists who created that rare lithograph, established 'American Superiority at the World's Fair'. They were motivated by persistent mockery, criticism, and even gleeful hostility, in the British press. My 'American cousins' needed to reply, and to highlight the important and innovative goods found among the six hundred exhibitors who travelled from the United States. Punch understood the lofty aspirations of the Great Exhibition, but it



Fig. 9. Detail from the chromo-lithograph shown as Fig. 4.

sniffed, early on, that America's 'contribution to the world's industry consists as of yet of a few wine glasses, a square or two of soap, and a pair of saltcellars.' They suggested that a portion of the area be made available to overnight lodgers who were unable to find other accommodations in crowded London.³

Compared to other sumptuous displays of luxury goods, America's practical locks, rubber, cotton, hats, chewing tobacco, paints, stoves, minerals, cloth, sewing machines, grains, furs, plants, tools, school furniture, chemicals, patent medicines, and even an air-exhausted coffin, mostly failed to impress.

Here are two more views of 'Brother Jonathan's' pedestrian items, from a series of published panoramas (Figs 11 and 12). In the first, the Greek slave—discussed below—was



Fig. 10. Daguerreotype, view of the Crystal Palace interior. Library of Congress, Marian S. Carson collection, DLC/PP-1997:105.

getting all the attention. In the second, we can glimpse Yankee clocks exhibited by one of their London dealers, Holloway.

Emma Willard, a women's educator from New York State, was not horological, but she displayed her colorful chronological illustrations (Fig. 13). Within her Temple of Time, fifty-nine ionic columns, each representing a century, paraded all the way back to the Creation, illustrating great historical figures and the steady advance of time.

As visitors approached the United States area, they were confronted by Hiram Powers's provocative sculpture, *The Greek Slave*, seen in an image showing parts of the American galleries (Fig. 14). A version of just her top third exists in multiple incarnations. Appropriate for my theme, Powers also sculpted a bust titled 'America'. Directly relevant to horology, I learned that, at age seventeen, Powers was apprenticed to clockmaker Luman Watson, a maker mainly of wood-movement clocks in Cincinnati, Ohio. During his apprenticeship, the lad improved the shop's wheel-cutting engine to double its output. How disappointing to clock lovers that Hiram moved on to an

3. *Punch. Or The London Charivari*, London, Vol. XX, 1851, p. 246.

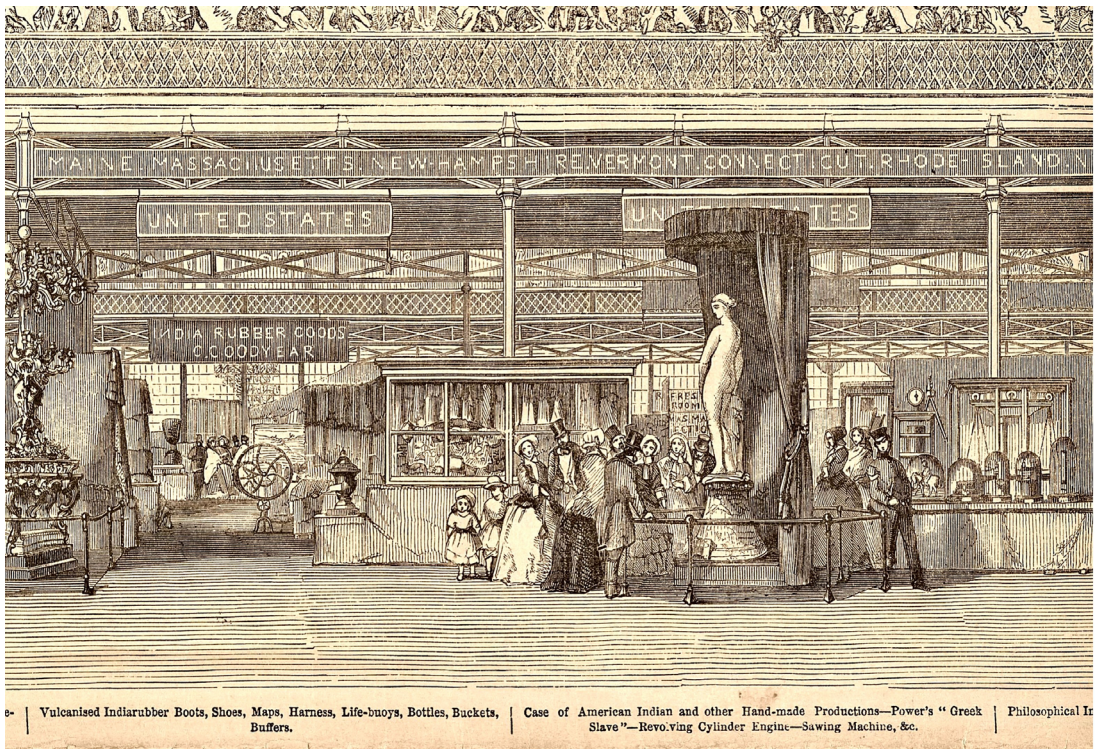


Fig. 11. View of United States exhibits including *The Greek Slave*. *Illustrated London News*, Grand Panorama of the Great Exhibition of All Nations. 1852 (detail). Avery Classics, Avery Architectural & Fine Arts Library, Columbia University.



Fig. 12. View of United States exhibits, display of 'cheap Yankee' clocks offered by London dealer Holloway at upper right.

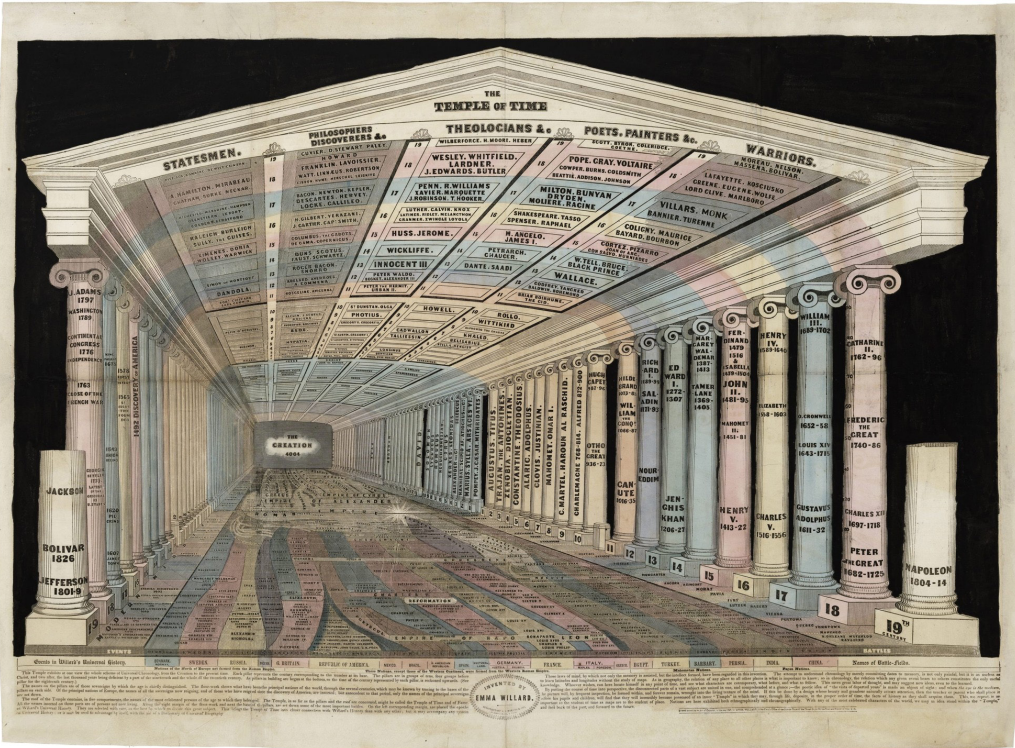


Fig. 13. Emma Willard, *Temple of Time*. New York: A. S. Barnes & Co., 1846.



Fig. 14. View of United States exhibits occupying the eastern end of the Crystal Palace. Plate from *Dickinsons' Comprehensive Pictures of The Great Exhibition of 1851*, from the *Originals Painted for H.R.S. Prince Albert* by Messrs. Nash, Haghe, and Roberts, R.A. London: 1854.



Fig. 15. View in the East Nave, *The Greek Slave*. *Recollections of the Great Exhibition, 1851*, John Absolon, Day & Son, Ltd. London: Lloyd Brothers & Co., 1851.



Fig. 17. Colonel Colt's revolver, bullet mold, and powder flask. *American Superiority at the World's Fair, 1852*, p. 30. Author's collection.

artist's career. How disappointing, too, for Americans, that the original 'Greek Slave' is standing in the remote, medieval, Raby Castle in County Durham.

Much was made of Powers's bold depiction of a young, vulnerable, *white* woman being offered in a Turkish slave market (Fig. 15), at a time when America's human bondage of Africans was on everybody's mind. The Fugitive Slave Act had just taken effect, requiring runaways, even in Northern states, to be returned to their Southern owners.⁴ *Punch* made much of the



Fig. 16. *The Virginian Slave*. Intended as a Companion to Powers's *Greek Slave*. *Punch. Or The London Charivari*, London, Vol. XX, 1851, p. 236.

evident American hypocrisy on the subject of slavery. They published an illustrated suggestion that a statue of 'The Virginian Slave' should be placed nearby (Fig. 16).⁵

Samuel Colt's six-barreled revolvers contributed to the massive carnage of our Civil War. In 1851, Colt received an Honourable Mention for them, (Fig. 17), and his guns

4. By sad coincidence, the grandson of the clockmaker whose life and work I have discussed in my book *Edward Duffield Philadelphia Clockmaker, Citizen, Gentleman, 1730–1803* was the federal commissioner in Philadelphia who was charged with enforcing the law. In 1854, abolitionists rejoiced at the sudden death of Edward Duffield Ingraham, by apoplexy.

5. *Punch. Or The London Charivari*, London, Vol. XX, 1851, p. 236.

OBJECTS REPRESENTED IN THE CHROMO-LITHOGRAPH,

Taken Laterally, viz., From Right to Left.

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Birt's Solar Compass. 2. Service of plate presented to E. K. Collins, Esq. 3. Goodyear's India Rubber Globe of the earth. 4. Bache's Balance. 5. Howland's Bell Telegraph. 6 & 7. Taylor's Gothic windows of Transparent Soap. 8. Simmons's Edge Tools—Axes, &c. 9. Brown & Wells's Tools—Braces and Bits. 10. Colt's Repeating Pistol. 11. Palmer's Artificial Leg. 12. Power's Greek Slave. 13. Ericsson's Sea Lead. 14. Centre Piece: Yacht America. 15. Iron Bridge of the New York Iron Bridge Company, in the back ground of the Centre Piece. 16. Ericsson's Alarm Barometer. 17. Bust of Hobbs, and Day & Newell's Parautoptic Lock. 18. Schooley & Hough's Ham. 19. Prouty & Mears's Plow. 20. Bond & Son's Astronomical Clock. 21. Power & Weightman's Chemicals. 22. Louderback's Peaches. 23. Borden's preparation called Meat Biscuit. | <ol style="list-style-type: none"> 24. Amoskeag Manufacturing Company's Tickings. 25. Lawrence, Stone & Co.'s Tartan made from native wool. 26. Chilson's Hot Air Furnace. 27. Dick's Anti-Friction Press. 28. Lowell Machine Shop's Self-Acting Lathe. 29. Portrait of Brady, Daguerreotypist. 30. Watson's Sporting Wagon. 31. McCormick's Reaper. 32. Storr's Bookbinding Machine. 33. Lerow & Blodgett's Sewing Machine. 34. Woodbury's Wood Planing, Tongueing and Grooving Machine. 35. Eisenbrant's Flutes. 36. Gemunder's Violins. 37. Crystal Palace. 38. Nunn's & Clark's 7 oc'Ve Piano Forte. 39. Albro & Hoyt's Floor Cloth, beneath the Piano Forte. 40. Herring's Patent Salamander Safe. <p>Round the Centre Piece are grouped the Cotton Plant, the Sugar Cane, the Tobacco Plant, Rice, Wheat and Indian Corn, emblematic of the "Produce," for which prizes were awarded to the State of Maryland, and citizens from different sections of the country.</p> |
|---|--|

Fig. 18. List of forty American objects illustrated in the lithograph. *American Superiority* book, p. 2.

were among America's main attractions. He encouraged visitors to squeeze off a round or two inside the building – I assume with blank cartridges. Colt's steam-powered factory in Hartford, Connecticut, was the largest and most advanced privately-owned armoury in the United States. It relied, in part, on hiring former employees of the state's clock factories. It was a showplace of American industry that began reversing the two-century flow of technology transfer from Britain to North America. Colt attended the Peabody dinner, and he was able to quickly establish a thriving firearms trade in England.

A reaping machine by Cyrus McCormick from New York was awarded a top prize. In field tests, witnessed by Prince Albert and conducted at Tiptree Hall in County Essex, this mechanical farmworker proved its clear 'superiority' over those made by English manufacturers. The 'Superiority' book and lithograph and book illustrate and describe a total of forty American products that they believed were outstanding examples (Fig. 18).

American clocks, mass-produced in sprawling Connecticut factories, perhaps best exemplified what distinguished American products (Fig. 19). Unlike costly English and



Fig. 19. Chauncey Jerome 30-hour OG shelf clock, c.1850. Schmitt Horan & Company, 20 September, 2021, Lot 171.

French clocks, most American clocks were 'cheap'. And not 'cheap' like primitive Black Forest clocks that were sold by wandering peddlers, but utilitarian, affordable, attractive, durable, and reliable, in nicely finished wooden cases. The story is well known about Connecticut clockmaking entrepreneur, Chauncey Jerome, invading the British Isles in 1842. His first boatload of 'superior' clocks were seized, and purchased for cash, by custom agents who accused him of selling below his costs of production. He wasn't. He pocketed the profits, and he returned with more. By 1851, his 'Yankee' clocks were selling by the thousands, and dozens were exhibited at the fair by his local dealers (Fig. 20)

The *Illustrated London News* reported that 'Messrs. Rodgers and Co., of London, exhibit upwards of fifty clocks made by Chauncey Jerome of Newhaven, Connecticut, U.S.; and Messrs. Holloway, also of London, show twenty-nine clocks, also of the true American cut'.

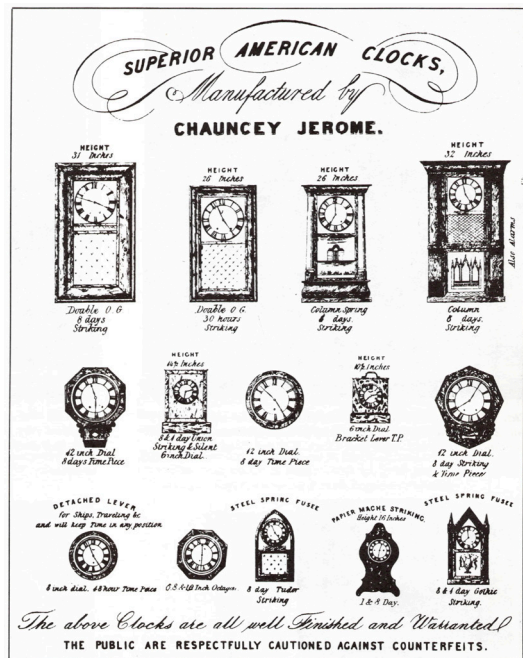


Fig. 20. Chauncey Jerome printed circular for the English trade, c.1850. Chris Bailey, 'From Rags to Riches to Rags: The Story of Chauncey Jerome', *NAWCC Bulletin Supplement* #15, Spring, 1986, Fig. 156, p. 79.



Fig. 21. Chauncey Jerome marine clock purchased at the Crystal Palace by Robert Gerwig, first director of the Furtwangen clockmaking school. Image courtesy of Dr. Johannes Graf



Fig. 22. Torsion pendulum clock, 'Year Clock Co., New York / A. D. Crane's Patent', c.1846. Bonhams, New York, 19 January, 2012, Lot 1188.

At the fair, Robert Gerwig, the first director of the Furtwangen clockmaker school in Germany, purchased the Jerome 'marine' clock seen in Fig. 21. Gerwig wrote that the clock 'shows the shortcomings of American workmanship, although when looking at it, one cannot deny that no other nation can match the Americans' ingenuity in achieving something as quickly as possible and with as few resources as possible.'⁶

Not every American clock was mass-produced, simple, and 'cheap' (Fig. 22). The American inventor Aaron Dodd Crane devised a torsion-pendulum year-running clock, that was exhibited by the 'Year Clock Company'. Figs 23 and 24 show one of several such models he produced, without much financial success,

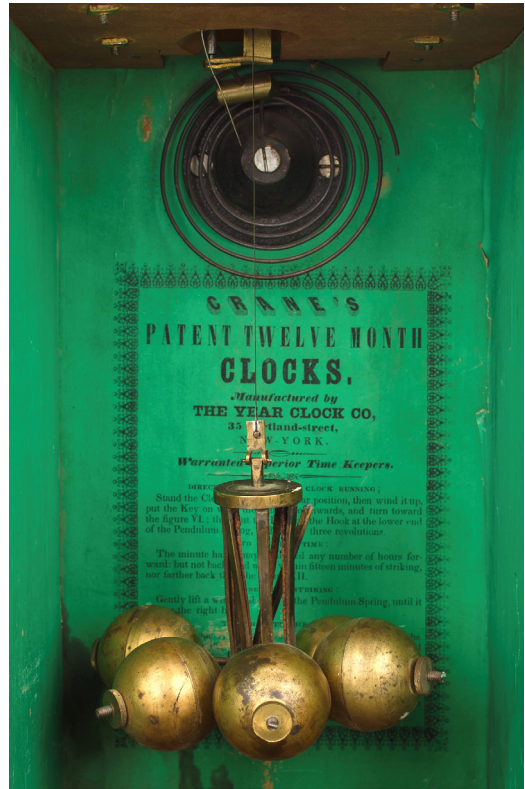


Fig. 23. Label and five-ball pendulum of Crane clock. Bonhams, New York, 19 January, 2012, Lot 1188.

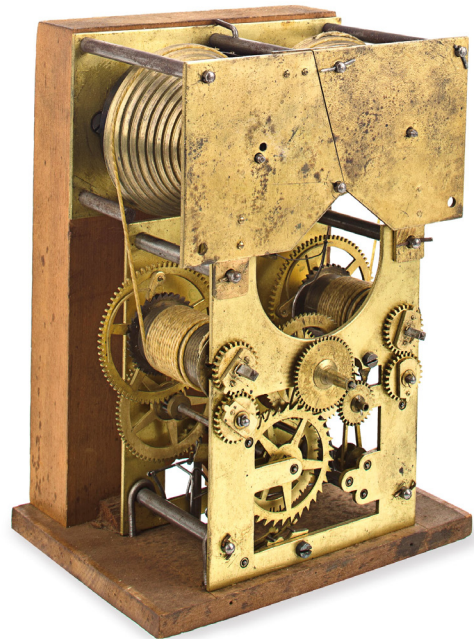


Fig. 24. Double-fusee movement, A. D. Crane torsion pendulum clock, c.1846. Bonhams, New York, 19 January, 2012, Lot 1188.

6.[Robert Gerwig:] From my travelogue of the London Exhibition (conclusion), in: *Gewerbeblatt für den Schwarzwald*, No. 13, June 20th 1852, pp. 49–51, here 50–51, via 19 September 2025 email to author from Dr. Johannes Graf.



ASTRONOMICAL CLOCK



SPRING GOVERNOR

BOND & SONS,

BOSTON, MASS.

Fig. 25. Bond & Sons Astronomical Clock & Spring Governor, *American Superiority at the World's Fair*, p. 22. Author collection.

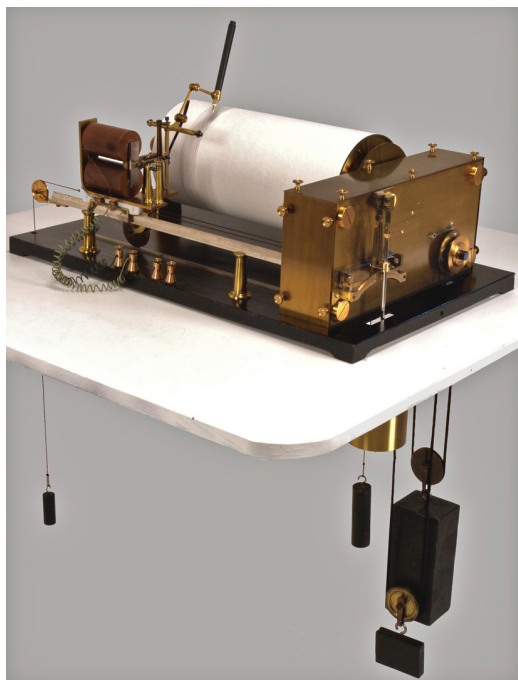


Fig. 26. Wm. Bond & Son spring governor. Courtesy of Don Saff.

and its unusual movement. Oddly, the Year Clock Company had failed in 1848, followed by a firm of a different name. I cannot explain them exhibiting in London three years later. The *Illustrated London News* also commented on this clock, noting that ‘the absence of the inventor, or some person understanding the construction of this clock, prevented us from obtaining any account of the working and advantages of this horological novelty’.⁷

I have saved the best of the fair’s American horology for last: Boston’s most eminent horological firm, Bond and Sons.⁸ The ‘American Superiority’ book contains a lithograph showing two of his products (Fig. 25), which are described in great detail over five pages of small print. These instruments at first were placed in an inconspicuous alcove. Colonel Reid and Sir David Brewster insisted that they be moved to a more prominent location. Reid, whose word was law throughout the building, stated that ‘I regard this astronomical clock as the most



Fig. 27. Wm. Bond & Son spring governor, rear view. Courtesy of Don Saff.

wonderful achievement of science which the world has seen since the days of Newton’.⁹

William Cranch Bond probably met Prince Albert. The Queen’s Consort viewed Bond’s apparatus when it was demonstrated in Ipswich, prior to the London fair, at a sectional meeting of the British Association. However, it was not the astronomical regulator that was the ‘wonderful achievement’, or for which the highest prize was granted. Bond did not make that instrument. At that time, he imported those regulators from Barraud and Lund.¹⁰ The ‘achievement’ was Bond’s ‘Spring Governor’. Long ago, Harvard University lost the one from the Great Exhibition, but a similar example is owned by Don Saaf (Figs 26 and 27). This invention was widely praised for eliminating inaccuracies during precise celestial observations. Using electricity, and an ivory button, the astronomer could record the exact time of the event being viewed in the telescope, rather than verbally counting and jotting down fractional seconds. This system became used worldwide in observatories.

Perhaps the most morale-building ‘display’ for Americans during the months of the fair was not in London. It was in August, off the Isle of Wight, when the fifty-three mile Queen’s Cup yacht race, viewed by the Queen herself, was won by the Schooner Yacht ‘America’, soundly

7. *The Illustrated London News*, June 21, 1851.

8. On which see Donald Saff, *From Celestial to Terrestrial Timekeeping. Clockmaking in the Bond family* (London: AHS, 2019).

9. *American Superiority at The World’s Fair*, 1852, p. 24.

10. Saff, *From Celestial to Terrestrial Timekeeping*, p. 169.

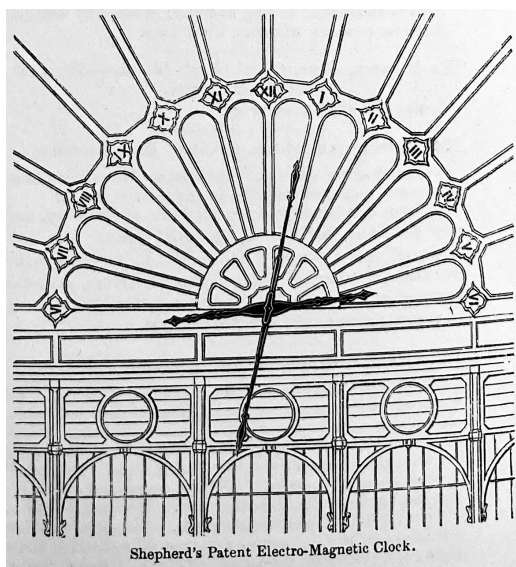


Fig. 28. Shepherd's Patent Electro-Magnetic Clock. 'In order that the clock-face might harmonize with the design of the south elevation of the Transept.... The figures were accordingly arranged in a semicircle, and placed at the intersections of the radial bars with the second semi-ring from the centre of the great fanlight.... two minute hands, and also two hour hands... The two minute hands together are 16 feet...'. *Official Catalogue of the Great Exhibition of the Works of Industry of All Nations*, 1851. London: Spicer Brothers, 1851, p. 420.

defeating seventeen of the finest nobility-owned examples of British naval architecture. England was humiliated, Americans were exultant. The American schooner is at the centre of the 1851 lithograph, just above the dial of the Bond/Barraud regulator (see Fig. 3).

Before I move to describing the extensive displays of horology by British, French, Swiss, and Austrian exhibitors, I can quote Queen Victoria's curt dismissal of the American section, written in her journal entry of 19 May 1851: 'Not very interesting' was her general impression. She noted the 'ludicrous effect' of a piano with a keyboard at each end, played by four performers. Her journal's only other mention of the United States had appeared two weeks previously. She commented on the Sheffield Bowie knives she had inspected. She apparently believed that these were wielded by everyone in America.¹¹

11. Queen Victoria journal, May 7, 1851.

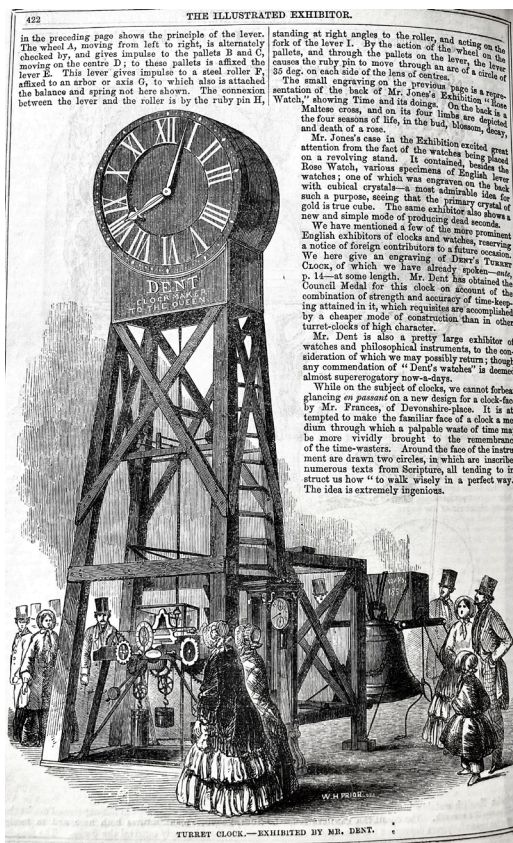


Fig. 29. Council-Medal turret clock by Dent, standing in main aisle. *The Illustrated Exhibitor*, 1851, p. 422.

During the many hours that Her Majesty roamed the aisles of the Crystal Palace, she devoted much attention to the half of the building devoted to the products of her realm. Whenever she needed to know the time, Shepherd's electric clock provided and distributed the minutes and hours, and it drove the immense pair of hands that were built into the south end of the transept. (Fig. 28). She certainly must have strolled, many times, past the imposing Dent clock. The machine was awarded a Council Medal for its 'combination of strength and accuracy of time-keeping... which are also accomplished by a cheaper mode of construction than in other turret clocks of high character' (Fig. 29). After the fair, Dent's clock was purchased by the Great Northern Railway Company. It served reliably in the tower of the King's Cross Station until it finally was retired a full century later.

The following is a summary of the awards in this Class :—

COUNCIL MEDALS.

Nation.	No. in Catalogue.	Name of Exhibitor.	Objects Rewarded.
United Kingdom	55	Dent, E. J. - - -	Great clock and collection of other articles.
France - - -	275	Japy Brothers - - -	Cheap clock and watch movements, made by machinery.
Switzerland -	94	Lutz, C. - - -	Hair springs.
France - - -	736	Wagner, J. (Nephew) -	Continuous motion remontoire, and collection of turret-clocks.

PRIZE MEDALS.

Switzerland -	22	Audemars, L. - -	Watches and watch movements.
Sardinia - - -	33	Benoit, A. - - -	Watches and tooth-polishing machine.
France - - -	411	Brocot, A. - - -	Half-dead jewelled escapement.
France - - -	1589	Detouche and Houdin	Collection of clocks.
Switzerland -	9	Dubois, F. William	Astronomical clock.
United Kingdom	57	Frodsham, C. - -	Chronometers and watches.
France - - -	516	Gannery, V. - - -	Astronomical clock.
France - - -	525	Gourdin, J. - - -	Small turret-clock.
United Kingdom	27	Gowland, J. - - -	Astronomical clock.
Switzerland -	8	Grandjean, H. - -	Pocket chronometers.
Switzerland -	24	Grosclaude, C. H. -	Ditto.
United Kingdom	7	Hutton, J. - - -	Chronometers.
United Kingdom	32	Jackson, W. H. and S.	Watches, solid key.
Denmark - - -	17	Jürgensen and Sons -	Chronometer.
Switzerland -	25	Lecoultré, A. - - -	Watches, movements, and pinions.
United Kingdom	12	Loseby, E. T. - - -	Chronometer compensation balance.
United Kingdom	68	MacDowall, Charles -	Clock escapement.
Switzerland -	96	Mercier, S. - - -	Watches.
France - - -	-	Montandon Brothers -	Watch mainsprings.
United Kingdom	35	Parkinson & Frodsham	Chronometers and watches.
Switzerland -	99	Patek, Philippe, and Co.	Chronometers, watches, &c.
France - - -	1425	Redier, A. - - -	Cheap watch alarms.
Switzerland -	101	Retor, F. (money prize, 50 <i>l.</i>)	Pocket chronometer with new escapement.
France - - -	984	Reydon Brothers & Colin	Cheap house clocks.
Prussia - - -	142	Richard, Louis - - -	Chronometer.
France - - -	1685	Riessec, N. - - -	Watch with hand printing seconds.
United Kingdom	130	Roberts, R. - - -	Turret-clock, and watch-plate drilling machine.
United Kingdom	123	Roskell, J. - - -	Collection of models and watches, and small clocks.
United Kingdom	124	Rotherham and Sons -	Collection of watches.
France - - -	733	Vissière - - - -	Chronometers.

HONOURABLE MENTION.

United Kingdom	52A	Aubert & Klaffenberger	Watches.
France - - -	407	Bailly-Comte and Son	Cheap turret-clocks.
Switzerland -	74	Baron and Uhlmann -	Chronometers and watches.
United Kingdom	34	Barraud and Lund -	Compensation balance and watches.
Switzerland -	31	Bock, H. - - -	Watches.
United Kingdom	94	Bolton, T. - - -	Cheap watches.
France - - -	450	Chavin (Elder Brother)	Cheap turret-clocks.
Switzerland -	34	Courvoisier, F. - -	Chronometers and watches.
United Kingdom	-	Cousens and Whiteside	Stop-watch.
Switzerland -	78	Elffroth, D. H. - -	Watch in pencil-case.
Switzerland -	23	Favre Brandt - - -	Watches and tooth-tracing machine.

Fig. 30. List of medals winners and honourable mentions for horological exhibits within Class XB. *Official Descriptive and Illustrated Catalogue*, London: Spicer Brothers, 1851, p. 745.

A total of one hundred and sixty-four Council Medals were distributed. The United Kingdom won seventy-eight of them; the Americans five.

British horological firms numbered more than one hundred and thirty. The Clockmakers' Company declined to take an interest, or to be involved. They decided that it would be: 'prejudicial to the British manufacturers' and would embolden their foreign competitors. Nonetheless, *The Illustrated London News* wrote that English horology displays were 'the choicest and most surprising collection of clocks and watches that have ever been witnessed by man'.

[Editor's note. The lecturer now offered a richly illustrated enumeration of English, French, Austrian and Swiss makers whose products were exhibited or mentioned. We merely list their names here, the lecturer or the editor can supply details if required.]

English makers: John Bennett, John Hutton, Thomas Yates of Preston, Connell of London, Howell & James, Delolme, Edward Funnell, Alexander Watkins, Tanner of Islington, Thomas Cole, John Moore and Sons, Barraud and Lund, Parkinson & Frodsham, John Bell, Jacob Loudan, John Pennington, Jones of Lombard Street.

French makers: Susse Freres, Vittoz, Tahan, Detouche, La Hoche, Achille Brocot, Japy Frères.

Austrian makers: Johann Ratzenhofer, Ignatz Marenzeller, Johann Kralik, all from Vienna.

Swiss makers: while just one maker of pendulum clocks was present, Dubois of Locle, Swiss watchmakers were abundant, and they were admired by the Queen who in her journal entry of 30th May called their workmanship 'most complicated and perfect': Audemars, Grandjean, and Grosclaude, LeCoultre, Mercier, Patek, Retor, Lutz of Geneva.]

The classified table of awards for Class XB, clocks and watches (Fig. 30) includes many names mentioned in the whistle-stop tour reported above, as well as other familiar names from the United Kingdom, such as Roskell, Rotherham, and Vulliamy. We see Barraud and Lund in the Honourable Mention Section at the bottom, but not for the movement in the Bond and Sons astronomical regulator. It may not have been publicly identified as theirs.

Bond's invention was not awarded within this sub-category. In a roster of awards made specifically to American exhibitors (see Figs 31a and b on following pages),¹² we see his Council Medal at the top of Class Ten: 'for the invention of a new mode of observing astronomical phenomena, &c.'. No prizes in the horology subclass were won by American clockmakers. Perhaps none was expected, unless somehow prizes might have been handed out for products that simply were 'cheap' or maybe 'just good enough'.

Henry Stevens, a Vermont-born writer and bibliographer, arrived in London in 1845. He was employed by the librarian of the British Museum, Sir Anthony Panizzi, to collect books, documents, journals, and other primary-source materials relating to the Americas, North and South. He also made purchases for our Smithsonian Institution and Library of Congress, and for the John Carter Brown library in Providence, Rhode Island. Mr. Brown was present at that London Coffee House dinner. Stevens's brief preface to the Peabody Dinner book, signed from Morley's Hotel, London, Nov. 20, 1851, ends with these lofty sentiments: 'I venture to hope that this little book will, in some degree, be instrumental in strengthening that bond of moral and friendly union between England and American which it was the wish of Franklin's heart to establish, and is and ever will be Mr. Peabody's aim to perpetuate.'

I join him, and Benjamin Franklin from the eighteenth century, in declaring my sincere hope, as well, for eternal respect and friendship between our two nations.

12. The list continues on page 12, not reproduced here, with the remaining eight Classes, in four of which no medals were awarded to the United States: XXIII Working in precious Metals, Jewellery and the like (-); XXIV Glass (-); XXV China, Porcelain, Earthenware (one Prize Medal); XXVI Decoration Furniture, Upholstery and the like (-); XXVII Mineral Manufactures (-); XXVIII Manufactures from Animal or Vegetable Substances not included in other sections (Council Medal for Goodyear's India Rubber, five Prize Medals); XXIX Miscellaneous Manufactures (five Prize Medals); XXX Sculpture (Prize Medal for Hiram Powers, *The Greek Slave*).

The following are the awards made to exhibitors from the United States.

CLASS I.

Mining, Metallurgy and Mineral Products.

Prize Medals. Adirondac Manufacturing Company, New York, steel and iron; Morris, Jones & Co., plate iron; New Jersey Exploring and Mining Company, zinc ores, iron (Franklinite) ores, smelting process; Trenton Iron Company, iron of fine quality, ores, &c.

Honorable Mention. Adirondac Manufacturing Company, New York, cast iron, &c.; Morrell, Stuart & Co., sheet iron; Morris, Jones & Co., boiler plate iron.

CLASS II.

Chemical and Pharmaceutical Processes.

Prize Medal. Power & Weightman, Chemicals.

Honorable Mention. Wetherell & Brother, various salts.

CLASS III.

Substances used as Food.

Council Medal. Gail Borden, Texas, for meat biscuit.

Prize Medals. W. Barnes, maple sugar; T. Bell, soft wheat from Genesee; L. Dean, maple sugar; Dill and Mulchahey, cavendish tobacco; C. Duffield, ham; J. H. Grant, cavendish tobacco; Hecker & Brother, Genesee flour; E. T. Herriot, Carolina rice; B. B. Kirtland, a collection of maize, thirty-five varieties; New York State Agricultural Society, collection of wheats; Raymond & Schuyler, flour, (thirds); P. Robinson, cavendish tobacco; Schooley & Hough, ham, Cincinnati.

Honorable Mention. John Bridge, oil cake; George Dominick, lard; Hecker & Brother, farina; W. Hotchkiss, wheat; James Lee & Co., oil cake; Mookler & Chiles, cavendish tobacco; Oswego Starch Factory, fecula of maize; Oyler & Anderson, cavendish tobacco; James Thomas, cavendish tobacco; Thomas & Co., cavendish tobacco; M. White, Muscovado sugar.

CLASS IV.

Vegetable or Animal Substances used for Manufactures, &c.

Prize Medals. S. Bond, cotton; Cockerill, wool; W. Colegate & Co., starch; J. H. Ewing, wool; W. Hampton, cotton; George Hicks, tillandsia usnoides; G. L. Holmes, cotton; H. G. & L. B. Hotchkiss, oil of pepper-mint; J. R. Jones, cotton; J. V. Jones, cotton; A. M. Kimber & Co., wool; W. W. Macleod, cotton; The State of Maryland, collection of produce; J. B. Merriwether, cotton; Perkins & Brown, wool; J. Pope, cotton;

ton; W. Seabrook, cotton; Rev. C. Thompson, woods; J. Nailor, cotton; Oswego Starch Factory, starch.

Honorable Mention. E. R. Dix, flax, hemp, and guano; G. Dominick, lard oil, T. Emory, lard oil; E. Feuchtwanger, bleached shellac; F. Frank, lard oil; L. Goddard, whalebone; Holbrook & Stanley, lard oil; F. O. Ketteridge, corn-husk fibre; R. J. Fell, woods; Truesdale, Jacobs & Co., cotton.

CLASS V.

Machines, including Carriages and Naval Mechanism.

Prize Medals. C. Childs, a slide-top buggy or phaeton, enamelled leather apron of very superior quality, the whole well got up and neatly finished; G. W. Watson, a sporting wagon, very neatly finished in all respects.

CLASS VI.

Manufacturing Machines and Tools.

Council Medal. D. Dick, various engineers' tools and presses.

Prize Medals. Blodgett & Lerow, sewing machine; T. K. Earl & Co., card clothing; W. Hayden, drawing regulator for cotton; Lowell Machine Shop, self-acting lathe and a power loom; C. Starr, book-binding machine; J. P. Woodbury, wood planing, tonguing and grooving machine.

CLASS VII.

Civil Engineering, Architectural and Building Contrivances.

Prize Medal. Ryder's patent iron bridge; Iron Bridge Manufactory, N. Y.

CLASS VIII.

Naval Architecture, Military Engineering, &c.

Prize Medals. National Institution of Washington, models of ships of war and large merchant vessels; J. R. St. John, nautical compass, purporting to show the presence of any disturbing forces upon the needle, and also to show the amount of the deflection resulting from these causes.

Honorable Mention. Samuel Colt, revolving rifles and pistols; W. R. Palmer, target rifle; Robbins & Lawrence, military rifles.

CLASS IX.

Agricultural Machines and Implements.

Council Medal. C. H. McCormick, reaping machine.

Prize Medal. Prouty & Mears, plough.

MECHANICS AND USEFUL ARTS.

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CLASS X.

Philosophical and Surgical Instruments and the like.

Council Medal. William Bond & Son, for the invention of a new mode of observing astronomical phenomena, &c.

Prize Medals. A. D. Bache, balance; M. B. Brady, daguerreotypes; W. A. Burt, solar compass, surveying instruments; J. Ericsson, sea lead, pyrometer, &c.; M. M. Lawrence, daguerreotype; John R. St. John, detector compass; J. A. Whipple, daguerreotype of the moon; B. F. Palmer, artificial leg.

Honorable Mention. J. E. Mayall, photographs.

CLASS X. (A.)

Musical Instruments.

Prize Medals. J. Chickering for a square pianoforte, and the jury think highly of his grand pianoforte; C. H. Eisenbrant, for clarionets and flutes; G. Gemunder, for a Joseph Guarnerius violin, (chiefly,) and for three other violins, and a viola; C. Meyer, for two pianofortes; N. Nunn & Clark, for a 7-octave square pianoforte.

Honorable Mention. Gilbert & Co., for a pianoforte, with Æolian attachment; C. Goodyear, for the successful application of a new material (India rubber) for the manufacture of a flute; G. Hews, for a square pianoforte; J. Pirron, for a patent square pianoforte.

Money Award. S. S. Wood, for the expense incurred in constructing his piano violin, £50.

CLASS XI.

Cotton.

Prize Medals. Amoskeag Manufacturing Co., an assortment of drillings, tickings, sheetings, and cotton flannel. Willimantic Duck Manufacturing Co., cotton sailcloth.

CLASS XII.

Woollens and Worsted.

Prize Medal. Gilbert & Stevens, (Mass.,) flannels exhibited by Johnson, Lowell & Co.

Honorable Mention. B. T. & D. Holden, blankets.

CLASS XIII.

Silk and Velvet.

No medals awarded for contributions from the United States in this department.

CLASS XIV.

Manufactures from Flax and Hemp.

No medals awarded to the United States.

CLASS XV.

Mixed Fabrics, including Shawls, but exclusive of Woollen Goods.

Prize Medal. Lawrence, Stone & Co., Tartans made from native wool.

CLASS XVI.

Leather, Skins, Fur and Hair.

Prize Medals. B. Baker, light harness of superior workmanship; H. M. Crawford, calf-skins tanned in oak bark; Hickey & Tull, two portmanteaus; Lacey & Phillips, a case of harness; Wisdom, Russell & Whitman, specimens of curled hair for furniture.

Honorable Mention. H. Adams, a portable saddle.

CLASS XVII.

Paper, Printing and Book-binding.

Prize Medals. J. K. Kenrick, superior ruling of account books; S. G. Howe, a system of characters, slightly angular in form, without capitals, for the blind.

Honorable Mention. Bradley, Band & Co., book cloth binding and block gilding; H. Gassett, superior ruling of account books; J. & W. McAdams, ruled account books and circular ruling; Sibell & Mott, specimens of account books; C. Starr, binding works for the blind, with thickened margins to prevent the embossing from being pressed out; E. Walker & Co., a Bible elaborately bound and ornamented, with a recess for a family register inside the cover.

CLASS XVIII.

Fabrics shown as Specimens of Printing or Dyeing.

No medals awarded to the United States.

CLASS XIX.

Carpets, Lace and Embroidery.

Prize Medal. Albro & Hoyt, floor cloths.

Honorable Mention. A. & A. Lawrence, carpets.

CLASS XX.

Articles of Clothing.

Prize Medals. W. H. Addington, shoes for mining purposes; Mrs. W. Haight, shirt.

CLASS XXI.

Cutlery and Edge Tools.

Prize Medals. Brown & Wells, tools; North Wayne Scythe Company, scythes; D. Simmons & Co., edge tools.

CLASS XXII.

Iron and General Hardware.

Prize Medals. Adams & Co., bank locks;