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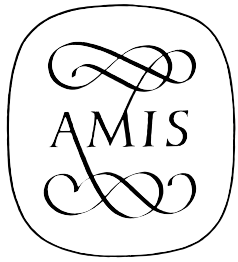

Early Violin Making in New England*

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Although numerous violins were made in America during the nineteenth century, such instruments have only recently begun to attract the attention of collectors and scholars.[1] Very little has been published on the subject of American violin making, and a considerable amount of fundamental research remains to be undertaken. The present article examines most of the earliest and best-known violin makers who worked in New England before the middle of the nineteenth century, when it was the most active region in the United States for string instrument making. What little has been written about these luthiers is amplified and corrected, and traits of their work described and illustrated.

Information Sources

Before addressing New England violin-making in particular, it will be useful to assess the state of scholarship about American violins in general. The first modern writer to present an overview of the subject was William H. Howe in a 1916 issue of *The Violinist's Guide*.[2] Howe's four-page article, titled "Early American Violin Makers," gives a few details about some of the best-known makers active before 1860, virtually all of whom worked in New England. This article is followed by a thirty-page

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1. The nation's bicentennial in 1976 increased awareness of all types of early American arts and crafts. At their annual meeting that year, the Violin Society of America exhibited several American stringed instruments at the Van Pelt Library in Philadelphia; see Philip Kass, "Exhibition of Pre-1900 American Stringed Instruments," *Journal of the Violin Society of America* 2, no. 4 (fall 1976): 70–83. In 1987, the American Federation of Violin and Bow Makers presented a similar exhibition at the Smithsonian Institution's National Museum of American History in Washington, D.C. A fifty-seven page typescript catalog without illustrations was produced by Gary Sturm and William Monical with the title "An Exhibition of American Violin Makers Before 1930."

2. William H. Howe, "Early American Violin Makers," *The Violinist's Guide* 20, no. 7 (July 1916): 15–18.

directory of violin makers who were active in the United States at the time, with comments and advertisements interspersed. The author was the son of Elias Howe, Jr. (1820–1895), the founder of a large musical supply house in Boston that imported, sold, and repaired violins as part of its business. The younger Howe probably based some of his observations on the examination of locally-made violins that came through the shop, but his essay contains several substantial errors and has been the source of much misinformation through its incorporation into various later publications.

In 1937, Boston music educator Christine Merrick Ayars published her *Contributions to the Art of Music in America by the Music Industries of Boston, 1640–1936*.[3] Although the scope is restricted to craftsmen active in Boston and its immediate environs, it is an invaluable study. Ayars not only drew data from city directories, advertisements, and other printed records, but she also interviewed several people formerly or currently involved in music publishing, music printing, and instrument manufacture in the city. Her material concerning violin making in the earliest period, however, relies heavily on Howe's article.

One of the violin makers who supplied information to Ayars was John A. Gould (1860–1944), an English immigrant who established a shop in Boston in 1889. Gould had produced a monograph about early New England violin makers, and although he was unable to publish it during his lifetime, it has now been incorporated into a recent issue of the *Journal of the Violin Society of America*.[4] The introduction professes the contents to be "reminiscence rather than research," but some important observations are nonetheless present.

Several indexes of violin makers have been published since the early twentieth century, although in most cases their focus is on European luthiers, with precious little said about their American counterparts.[5]

3. Christine Merrick Ayars, *Contributions to the Art of Music in America by the Music Industries of Boston, 1640–1936* (Boston: The H. W. Wilson Company, 1937).

4. John A. Gould, "The Early Violin Makers of New England," *Journal of the Violin Society of America* 16, no. 1 (1999): 3–76. I am grateful to John M. Gould for allowing me access to his grandfather's manuscript prior to its publication.

5. Among the more important indexes of European violin makers are: Willibald Leo Frh. von Lütgendorff, *Die Geigen- und Lautenmacher vom Mittelalter bis zur Gegenwart* (6th ed., Frankfurt am Main: Frankfurter Verlags-Anstalt A. G., 1922; reprint Tutzing: Hans Schneider Musikverlag, 1975); Henri Poidras, *Critical and Documentary Dictionary of Violin Makers, Old and Modern*, trans. Arnold Sewell (Rouen: Imprimerie de la Vicomté, 1928); René Vannes, *Dictionnaire Universel des Luthiers* (Brussels: Les Amis de la Musique, 1951; supplement vol. 1959, rev. 1985); and Karel Jalovec, *Encyclopedia of Violin-Makers* (London: Paul Hamlyn Ltd., 1968).

Published in 1959, the *Universal Dictionary of Violin and Bow Makers,* by English violinist William Henley (1874–1957), was the first to include a significant number of American craftsmen.[6] Henley traveled extensively as a performer, and it was during these trips, including a supposed visit to America during the 1920s, that he gathered information for his book. His research is quite uneven, though, with highly subjective opinions about instruments, apocryphal stories about several makers, and no indication of his source material.[7]

In 1986, violin enthusiast Thomas Wenberg (born 1950) completed his *Dictionary of American Violin Makers*,[8] a work of impressive breadth. Regarding the earliest makers, Wenberg appears to draw heavily on the sources discussed above, excluding the Gould manuscript, of which he was perhaps unaware. The work suffers from the same shortcoming as most other indexes of violin makers: a failure to cite specific sources of information.[9] Even more regrettably, no updated editions of this groundbreaking book are currently planned.

Instrument Types

There is ample evidence of the use of all types of musical instruments in New England during the Colonial period, nearly all of which were brought to North America by the colonists themselves, or later imported from Europe by various types of merchants.[10] With few immigrants

6. William Henley, *Universal Dictionary of Violin and Bow Makers* (Brighton: Amati Publishing Ltd., 1959).

7. Boston violin maker Earl Day Brown (1892–1980), who worked with Ole H. Bryant (1873–1943) from about 1921 to 1942, remembered being interviewed in the 1920s by Henley or perhaps an agent working on his behalf. I thank Harold Priest, who heard this story directly from Brown, for sharing it with me.

8. Thomas Wenberg, *Dictionary of American Violin Makers* (Mt. Hood, Oregon: Mt. Hood Publishing Company, 1986).

9. The supplement volume of Lütgendorff's *Die Geigen- und Lautenmacher vom Mittelalter bis zur Gegenwart,* compiled by Thomas Drescher (Tutzing: Hans Schneider Musikverlag, 1990) is progressive in citing the origins of its data.

10. See Barbara Lambert, "Social Music, Musicians, and their Musical Instruments in and around Colonial Boston," in *Music in Colonial Massachusetts, 1630–1820, Vol. 2: Music in Homes and Churches* (Charlottesville: The University Press of Virginia, 1985), 409–514. Boston newspapers of the eighteenth century frequently offer imported violins for sale, most often in advertisements placed by various members of the Deblois family, who offered a wide range of general merchandise. See Mary Jane Corry, et al., *The Performing Arts in Colonial American Newspapers, 1690–1783: Text Database and Index* (New York: University Music Editions, 1997).

trained in the art of lutherie, and a relatively low product demand, it is not surprising that violins and related instruments were seldom made in New England before the 1790s. In the decades immediately after America's war for independence from England, local manufacture of all kinds of goods began to increase steadily. Though musical instruments gradually became part of this output, the demand for violins, violas, and cellos remained quite limited.[11] Boston, for example, supported only one small theater orchestra by the end of the eighteenth century.[12]

Much of Puritan New England maintained a lingering sentiment against instrumental music in general, and many considered the violin's long association with dancing especially damning. But beginning as early as the 1780s, and continuing well into the nineteenth century, some New England churches that could not afford an organ began to use a cello to provide instrumental support for congregational singing. With its deep, somber tone, the cello was evidently considered a more acceptable instrument for worship than the sprightly violin. As demand for cellos increased, several self-taught luthiers began to make them locally, further motivated by the difficulty and expense of shipping such a large and fragile instrument from abroad.[13]

Some early New England cellos approach the classic proportions and dimensions of European instruments, but the propensity of their makers was to construct the bodies of these instruments as much as three inches longer than normal and commensurately wider as well (fig. 1). Whereas

11. Only three examples of eighteenth-century violins made in parts of North America other than New England have been documented. These include instruments made in 1759 by John Antes of Bethlehem, Pennsylvania, and in 1766 by Azariah Smith of Christian Springs, Pennsylvania (both in the Moravian Historical Society, Nazareth, Pennsylvania); see Frederick R. Selch, "Some Moravian Makers of Bowed Stringed Instruments," this Journal 19 (1993): 38–64. A third instrument was made in 1778 by Peter Young of Philadelphia (in the Yale University Collection of Musical Instruments, New Haven, Connecticut, no. 4725.62); see Nicholas Renouf, *A Yankee Lyre: Musical Instruments by American Makers* (New Haven: Yale University Collection of Musical Instruments, 1985), 3.

12. See H. Earle Johnson, *Musical Interludes in Boston, 1795–1830* (New York: Columbia University Press, 1943; reprint New York: AMS Press, 1967), 43–156; and Cynthia Adams Hoover, "Epilogue to Secular Music in Early Massachusetts," in *Music in Colonial Massachusetts* 2:715–867.

13. Similarly, eighteenth-century English luthiers became skilled in building cellos as a response to the difficulty of safely transporting instruments from Italy; see Brian W. Harvey, *The Violin Family and its Makers in the British Isles* (Oxford: Clarendon Press, 1995), 29.

Figure 1. Bass viol, Abraham Prescott, Deerfield, New Hampshire, about 1825–1830. Museum of Fine Arts, Boston, William Lindsey Fund, 65.2687. (Unless otherwise noted, all photography courtesy of Museum of Fine Arts, Boston, reproduced with permission.)

a classic European cello of the eighteenth century has a body length of about $29^{3}/_{4}$ inches (measured along the back) and a lower bout width of about 18 inches, the dimensions of instruments made in New England vary widely, with lengths ranging from $26^{1}/_{2}$ to more than 33 inches and lower bouts from 15 to more than 21 inches.[14] The terminology used for these American instruments in period advertising and on the labels of most surviving examples is "bass viol"; they should not be confused, however, with the lowest-pitched members of the viola da gamba family, which were also called bass viols in English-speaking countries. American bass viol players understood that their instrument was essentially the same as a cello, but most of them probably never needed to play more than the simplest bass line of a hymn tune.[15]

A few early New England luthiers produced double basses, which, like most European examples of the time, had only three strings (fig. 2). Like their cello-sized relatives, these New England double basses were used primarily to accompany church singing, though their tone is often considered of such high quality by modern performers that they are quite sought-after for use in both jazz and classical music.

A handful of surviving instruments have bodies much smaller than a bass viol, but considerably longer and thicker than a viola (fig. 3). Although none of these alto- or tenor-size viols is signed, records from the shop of one New Hampshire maker suggest that he produced such instruments.[16] Conclusive evidence is lacking, but these mid-range instruments were probably used for church music in a manner similar to bass viols, their large bodies (between 19 and 21 inches long, with ribs nearly $2^{1}/_{2}$ inches high) dictating that they be held upright between the legs,

14. Forty-five New England bass viols from public and private collections were surveyed to determine this range of dimensions.

15. Modern writers sometimes apply the term "church bass" to instruments used in this manner; see Frederick R. Selch, "Yankee Bass Viol Makers," *Journal of the Violin Society of America* 2, no. 2 (spring 1976): 26–37; and Selch, "Instrumental Accompaniments for Yankee Hymn Tunes" (Ph.D. diss., New York University, 2001). Pertinent contemporary remarks about American bass viols and their shortcomings are made in *Second Massachusetts Charitable Mechanics' Association Catalogue* (Boston: Henry Prentiss, 1839), 93–96.

16. A few instruments called "tenor viols" are listed in the account books of Abraham Prescott; see Edward Wall, "Abraham Prescott: Bass Viol Maker of Deerfield and Concord," *Historical New Hampshire* 42, no. 2 (summer 1987): 116. Of the few examples of such instruments discovered to date, two are in the Museum of Fine Arts, Boston, while others are owned by Frederick R. Selch and an anonymous collector in Maine.

Figure 2. Double bass, Abraham Prescott, Deerfield, New Hampshire, 1823. Museum of Fine Arts, Boston, Gift of Frank G. Webster, 1987.22.

Figure 3. Tenor viol, unknown maker, New England, about 1820–1840. Museum of Fine Arts, Boston, William Lindsey Fund, 65.2684.

rather than at the shoulder like violas (which are often closer to 15 inches long with ribs only $1\frac{3}{8}$ inches high). Production of regular-size violas in New England was very limited before the second half of the nineteenth century, but since violas were often referred to as "tenors," readers should be aware of that term's ambivalence in period literature.

A few bass viol makers advertised violins, but the very small number of surviving examples suggests that actual production of such instruments was infrequent. Not until the 1830s did a few instrument makers begin to devote their attention primarily to violins rather than bass instruments. Likewise, bass viols began to decline in popularity about this time, due in part to the development of reed organs, which soon took over the role of string instruments in church. (Interestingly, it was often bass viol makers, such as Abraham Prescott and the Dearborn brothers, who later became successful manufacturers of reed organs.) Although the preponderance of surviving bowed string instruments made in New England until the mid-nineteenth century are bass viols and double basses, in this study I shall primarily examine the few known violins made during the period and those luthiers who are known to have made violins.

Construction Methods

As with many other orchestral instruments, violin design began to undergo changes in the second half of the eighteenth century in order to allow better performance of increasingly expressive music in larger venues. Major modifications to the violin included a longer fingerboard, a longer neck and different method of attaching it to the body, and a more substantial bass bar.[17] Such alterations permitted use of heavier strings tuned at greater tension and enabled the player to produce higher notes and a more powerful tone. Gradually, many older violins were modernized to incorporate these new features. By the early nineteenth century this new method of construction was prevalent in much of Europe, and ultimately became the standard for violin making everywhere.

17. For a more thorough description of changes in violin construction during this period see David Rubio, "The Anatomy of the Violin," in *The Book of the Violin* (New York: Rizzoli, 1984), 18–47; and William Monical, *Shapes of the Baroque: The Historical Development of Bowed String Instruments* (New York: The American Federation of Violin and Bow Makers, Inc., 1989), 1–8.

Although many early American craftsmen in other fields employed the most current working methods of their European counterparts, knowledge of the latest developments in violin making seems to have lagged. Most of the few luthiers active in New England before the mid-nineteenth century were apparently self-taught, and probably had little opportunity to examine well-made European violins. But they likely had access to older examples of string instruments that had yet to be modernized, and presumably adopted their assembly techniques from these models. Likewise, certain visual traits used in their instruments seem also to have been derived from earlier traditions.[18] These archaic features are easily observed in the numerous surviving bass viols from New England, but they are often present in the earliest violins as well.

Early New England bowed string instruments differ in two principal respects from modern examples: assembly of the soundbox and attachment of the neck. With respect to the soundbox, the difference lies primarily in how the front and rear plates (belly and back) are attached to the sides (ribs). In modern violins, the interior corners of the ribs are reinforced with large V-shaped blocks glued in place, and thin wood linings are glued along the entire length of the ribs' upper and lower edges. These components primarily provide additional gluing surface for the belly and back. In many early New England instruments, as in some earlier European instruments, the ribs have no linings whatsoever, and corner blocks are very thin or even absent. The soundbox is assembled by gluing the ribs into a flat-bottomed groove cut just inside the perimeter of the belly and back (fig. 4). Some have suggested that this type of joinery was used because it allows easier assembly than the system with linings, but its main advantage may have been the relatively sturdy structure it creates, with glue joints that fare well even in extreme condi-

18. A considerable amount of literature has been devoted to violin making in northern Italy during the seventeenth and eighteenth centuries, but little has been published (especially in English) about the stylistic differences of various other schools of lutherie in Europe and America. A brief overview can be found in Monical, *Shapes of the Baroque,* 1–8. Roger Hargrave presents a well-illustrated description of classic north Italian violin building in "The Method of Construction Used by the Cremonese Makers, Circa 1550–1750," *Journal of the Violin Society of America* 10, no. 1 (1988): 33–108. For an examination of English techniques, see Harvey, *The Violin Family,* 37–66. A study of archaic traditions in parts of Germany and Switzerland is found in Olga Adelmann, *Die Alemannische Schule: Archaischer Geigenbau des 17. Jahrhunderts im südlichen Schwarzwald und in der Schweiz* (Berlin: Staatliches Institut für Musikforschung, Preussischer Kulturbesitz, 1990).

Figure 4. Detail of neck joint and grooved belly from bass viol, Abraham Prescott, Concord, New Hampshire, about 1830–1840. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.19.

tions of humidity or dryness. A great disadvantage of this construction method, though, was the difficulty in removing either plate for interior repairs. Attempts to do so often split the rib, leaving some of it adhered in the plate's groove. Instruments with grooved plates typically do not have linings, although there are exceptions.

A variation of soundbox assembly occasionally found in New England instruments utilizes linings made from very short pieces of wood, rather than continuous strips. Both the size of these short linings and their spacing vary considerably in surviving instruments. This style of linings was probably borrowed from guitar construction, where the linings, although continuous, have deep kerfs to permit easy bending. Because of

a continuing tendency for old European violins to undergo modernization, the historical use of grooved plates and short linings among such instruments has been difficult to trace. It has been suggested, however, that the former feature was used most widely in the Lowlands, Saxony, and parts of Eastern Europe, while the latter feature is occasionally found in instruments from France, Germany, and Scandinavia.[19]

The method of attaching the neck to the body is another distinctive feature of many early New England string instruments. A modern violin has a semicircular wood block glued to the inside of the upper end of its ribs. The neck is glued into a wide mortise cut into this so-called neck block.[20] The neck of a typical instrument made in early New England, however, features a carved foot where it joins the body, and the foot is glued to the inside of the back (fig. 4). The ribs are then glued and wedged tightly into grooves cut into each side of the neck. A small platform is often carved on the inside of the back to offer a flat gluing surface for the foot, and in larger instruments, such as a bass viol, screws sometimes reinforce this joint. Some of these screws appear to be original, but others may be the result of later repairs. Violin necks from this period often have no actual carved foot, but are instead cut somewhat square at their end. The footed neck is another technique that was probably borrowed from guitar building. It is difficult to determine with any certainty just how often this type of neck was used in European violins made before the nineteenth century, since so many instruments have been modernized, but it appears that it may have been used quite widely.[21] Adoption of this construction method by early New England luthiers may have been slightly old-fashioned, but they had probably seen it in many existing instruments.

19. See Adelmann, *Alemannische Schule*, 133. I am grateful to violin makers Andrew Dipper, Horst Kloss, and William Monical for sharing their own observations about European precedents for features found in early New England violins.

20. This method of neck attachment is thought to date from the early nineteenth century; see Monical, *Shapes of the Baroque*, 5. In classic Italian violin construction the neck is simply nailed to the ribs from the inside through a neck block before attachment of the plates; see Hargrave, "Cremonese Makers," 69–79.

21. English violins by William Newcastle (1740) and William Forster I (c. 1740) with footed necks are illustrated in *The British Violin: The Catalogue of the 1998 Exhibition "400 Years of Violin and Bow Making in the British Isles"* (Oxford: British Violin Making Association, 2000), 398–99. I thank Benjamin Hebbert for calling them to my attention.

As with most European violins dating before the early nineteenth century, the necks and fingerboards of early New England string instruments are shorter than those used on modern examples. This limited their upper range, but as mentioned above, these instruments were largely used for amateur music making rather than for the performance of challenging classical repertoire.[22]

A few distinctive traits can also be observed on the bellies of early New England string instruments. Glued to their underside, and running longitudinally under the bass foot of the bridge, is a long, narrow wood strut called the bass bar. In modern violins this strut runs at a very slight angle to the body's centerline; however, New England instruments (especially bass viols) often contain a bass bar placed at a more pronounced angle of four or five degrees, running from the bass side at its lower end to the center seam at its upper end. These bass bars are sometimes carved directly from the wood of the belly itself, a feature often difficult to detect but one which is found in some European folk instruments as well as in selected examples of both the violin and viola da gamba families.

The bellies of better-quality violins are traditionally constructed from two pieces of fine-grained spruce, with one seam at the center. The difficulty of procuring wide pieces of this kind of wood for larger instruments, such as cellos and basses, sometimes forces a luthier to construct a belly from four or more pieces of stock. It is not unusual, therefore, to find New England bass viols made in this manner. One exceptional example is constructed from ten strips of wood, and more than one early American violin is known to have a four-piece belly.[23] It has been suggested that the reason these luthiers sometimes used such narrow strips was to achieve evenly-spaced grain across the entire width of the belly.[24]

22. Regarding the so-called baroque set-up of the neck and fingerboard see Rubio, "Anatomy of the Violin," 19–24; and Monical, *Shapes of the Baroque,* 4–8.

23. The bass viol was made by the Dearborn brothers in Concord, New Hampshire, and is in exceptionally fine condition. Formerly owned by the late Robert Rosenbaum, this instrument is now in Japan's Hamamatsu Museum of Musical Instruments; see *Hamamatsu Museum of Musical Instruments, Catalog II: European Chordophones, Idiophones, Membranophones* (Hamamatsu: Hamamatsu Museum of Musical Instruments, 1995), 20. This publication incorrectly lists the instrument's date as 1896, but Joseph Peknik, one of its former owners, recalls the date as 1836. As late as the 1880s, Charles Emery Farley (1846–1927), working in New Boston, New Hampshire, made some violins with four-piece bellies. I thank Harold Priest for this information.

24. I thank Harold Priest for this observation.

A more logical explanation is that, lacking well-seasoned softwood, the makers recycled stock from previously milled items that were adequately dry, but not very wide, such as door and window frames.[25]

The choice of wood for early New England instruments is also worth noting, although it has long been known that their makers often used locally-grown material. Microscopic examination of wood samples from the bellies of ten bass viols reveals a predilection for Eastern white pine (*Pinus strobus*), which was found in seven examples.[26] Red pine (*Pinus resinosa*), hard pine (probably *Pinus rigida* or pitch pine), and spruce (*Picea*) were also found, however, suggesting that makers were probably willing to use any available piece of stock, provided it was well-seasoned. Among ten violin bellies examined for this study, spruce was identified in nine of the examples, with Eastern white pine used only for the earliest instrument of the group. Native wood, usually American hard maple (*Acer saccharum* or *A. nigrum*), was also often used for the backs, ribs, and necks of many of these instruments.[27] In the more primitive examples of this school (but especially the bass viols), one often finds the wood used for the back, and sometimes the belly, to have been cut tangentially to the tree's growth rings, a product known as slab-sawn wood. Unlike quarter-sawn wood, which is cut perpendicular to the growth rings, slab-sawn wood does not produce the evenly-spaced lines seen on a typical

25. I thank Andrew Dipper and David Bromberg for pointing this out. An undated violin made in Lynn, Massachusetts, owned by descendants of John A. Gould, bears a label indicating that its back and ribs are made from wood taken from the town's Central Church on Broad Street, its belly is made from parts of a building at the Lynn Academy (built in 1804), and the neck and scroll are carved from parts salvaged from the frigate U.S.S. *Constitution* (built in 1797). Another violin, made in 1901 by Lysander O. Makepeace, in the Lynn Historical Society (no. 1793), has a belly made from the first church built in Lynn; see Ayars, *Contributions to the Art of Music*, 196 and 300. Yet another instrument, made in Boston by Calvin Baker in 1887, and auctioned by Skinner, Inc., in Boston on November 20, 1994 (lot 285), bears an inscription stating that the belly is of wood from the Hollis Street Church.

26. I am grateful to John Koster, Conservator and Professor of Museum Science at America's Shrine to Music Museum in Vermillion, South Dakota, for undertaking identification of these samples, most of which were taken from instruments in the Museum of Fine Arts, Boston.

27. Samples of maple were only taken from one instrument, since American maple, as opposed to European species, can often be identified by the naked eye based on the presence of dark pith flecks, which are the result of infestation by an insect only present in North America. A few surviving bass viols have softwood backs, such as an instrument from 1810 by Benjamin Willard of Lancaster, Massachusetts (in the Museum of Fine Arts, Boston, no. 1987.15).

spruce belly or the beautiful striped figure seen on a good maple back. Use of slab-sawn wood may have been a cost-saving measure, since quarter-sawing wood is more wasteful, or these self-taught luthiers may have just been less discerning in the use of their wood stock.

Several other recurring features in early New England stringed instruments are primarily visual rather than structural. Most noticeable are the soundholes, which were sometimes cut leaving a small wood strut spanning the upper and lower curves (fig. 5). The intention may have been to strengthen the belly in these areas, but there are examples where the struts have been cut away by later repairmen who simply did not like their appearance or felt that they hindered the belly's vibrations. This peculiar feature has long been associated particularly with instruments from New England, though there are precedents for it among certain European lutherie traditions.[28] Also, the soundhole shapes on many early New England instruments do not closely imitate those on classic European models. On some of the earliest examples, the curved ends are thin and elongated (figs. 1 through 3), while on others the soundhole is rather wide throughout its outline (fig. 5). Also, the small notches or nicks that typically mark the center of the soundhole may be absent, ill-proportioned, or slanted downward toward the outside of the body (i.e., opposite to the usual direction).

Better-quality European violins have always been decorated with purfling, a pair of dark lines around the perimeters of their bellies and backs. These lines are usually comprised of two thin strips of dark-stained wood sandwiching a lighter strip, all inlaid into a shallow groove. In many lesser-quality European instruments, however, the same visual effect is achieved with two lines of dark ink, and early New England makers often opted for this simpler technique.[29] The New Hampshire craftsman Abraham Prescott sometimes applied an attractive double helix or roped pattern, rather than parallel lines, to his bass viols.

The pegbox and scroll of an instrument especially reveal a maker's skill and design sense, and this is no less true of New England luthiers. In most European violins the carved double channels or "flutes" atop the scroll extend all the way down the back of the pegbox. In some of the earliest New England instruments, though, these flutes stop short,

28. See Adelmann, *Alemannische Schule,* 34–35, 96, 104–05, 115, and 124–25.

29. Inked purfling has been used on lower grade instruments from all over Europe, but particularly on violins made in Milan; see Harvey, *The Violin Family,* 55–56.

Figure 5. Detail of soundhole from bass viol, unknown maker, New Hampshire, about 1830–1840. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.17.

leaving the back of the pegbox flat.[30] One also observes many New England scrolls in which the carving of the volutes on the side begins quite abruptly, creating a relatively steep scoop just above the sides of the pegbox. One researcher has suggested that both this feature and flat-backed pegboxes are a result of the maker having conceived the scroll

30. Flat-backed pegboxes are also common on Milanese violins, but it is unknown whether a New England maker ever saw such an instrument.

and pegbox as two separate entities rather than one fluid and connected element.[31]

One final feature typically found on New England bass viols and double basses, though seldom on violins and smaller instruments, is worm-gear "tuning machines." The earliest bass viols have wood tuning pegs, since instruments with brass machines did not appear until the 1820s.[32] Geared machines do not slip like wooden pegs, and therefore provided amateur players with some security in tuning. Machine tuners are standard equipment on modern double basses and are occasionally seen on older student-model cellos, but they are almost never found on violins or violas.[33]

Folk Violins

Numerous rustic violins survive that bear no trace of their makers' identities or their years of fabrication, but were probably made in New England (fig. 6). While it is likely that most of these were made during the nineteenth century, it is also possible that some were made earlier. Because of their great individuality, it is extremely difficult to assign them even to a general school of building, let alone a specific time period. Apart from their amateurish construction, the only thing these folk violins have in common is a tendency to exaggerate certain features. The approaches to body outline, soundhole shape, scroll carving, and varnish show a wide variety of skill and aesthetic sense. All of them are probably products of rural artisans who either had no model at hand or who based their work on varying memories of what a violin looked like. As folk art they are often quite appealing, but more importantly, they illustrate how strong the desire was to have a musical instrument during this period.[34]

31. I thank Karel Moens for sharing this theory with me. See also Adelmann, *Alemannische Schule,* 38–39, and 98–99.

32. Abraham Prescott first added tuning machines to a bass viol in 1821; see Wall, "Abraham Prescott," 108. For more about machine tuners see Cecil Adkins, "Machine head," in *The New Grove Dictionary of Musical Instruments* (London and New York: Macmillan Press Ltd., 1984), 2:587–88.

33. See *Second Massachusetts Charitable Mechanics' Association Catalogue,* 94.

34. See Steven C. Mallory, "Capt. Eliphalet Grover's 'Boon Island Fiddle': The Folk Violin in New England, 1750–1850," *New England Music: The Public Sphere, 1600–1900* (Boston: Boston University, 1996), 176–90.

Figure 6. Folk violin, unknown maker, New England, 19th century. Museum of Fine Arts, Boston, Gift of Frank G. Webster, 1987.12.

Known Makers and Instruments

Geoffrey Stafford. The earliest account of a luthier working in New England concerns a London convict named Geoffrey Stafford, who was deported to the Massachusetts Bay Colony in 1691 with two hundred other Englishmen.[35] Stafford was trained as a "lute and fiddle-maker," but relocation to North America apparently did little to change his unlawful nature. When he and his fellow criminals were armed to defend the western frontier against the French and Indians, they instead turned to looting. Stafford reportedly found time to make a few violins and lutes during this period, and carried examples with him to New York City at the invitation of Governor Benjamin Fletcher. But his rough ways led to further trouble, and he was eventually hanged for robbery. No instruments by Stafford are documented, and his influence on any other violin builders in the Colonies was probably minimal. His story is pertinent, though, as an illustration of the isolated circumstances of instrument making in New England at the time.

James Juhan. An artisan named James Juhan (variously spelled Juan or Joan) worked in Boston from 1768 to 1771, giving lessons in music and French, organizing and presenting concerts and musical theater, and building musical instruments.[36] In the *Boston Weekly News-Letter* on February 15, 1770 (and in two other local newspapers), Juhan advertised a benefit concert in which "all the Violins that shall be used in this Concert, have been Manufactured here by the said Joan [*sic*], who makes and sells very cheap, Violins, Screw-bows and Cases, Basse-Viols, &c. no ways inferior to the best imported." Juhan later worked in Philadelphia, Charleston (South Carolina), and various cities in Virginia. None of his instruments has been discovered, and it seems likely that his total output was small, given his other wide-ranging activities.

Simeon Snow. The earliest surviving and datable violin made in New England bears a handwritten label indicating it was made by Simeon

35. The story is related in Daniel Spillane, *History of the American Pianoforte: its Technical Development, and the Trade* (New York: D. Spillane, 1890; reprint New York: Da Capo, 1969), 74–75. The source is not indicated, however, and this account remains uncorroborated.

36. Various documents pertaining to Juhan are transcribed by Barbara Lambert in "Music Masters in Colonial Boston," Appendix C in *Music in Colonial Massachusetts* 2:1079–1094, and in Corry, *Performing Arts*, passim.

Snow in Lexington, Massachusetts, on March 29, 1779 (fig. 7).[37] Virtually nothing is known about Snow except that he left Lexington shortly after making this instrument and moved to Holden, Massachusetts.[38] Violin making was clearly an amateur endeavor for Snow, and he probably made few if any other instruments beyond this one example. It is roughly made and has undergone repeated repairs, but retains many original features. The outline is unrefined with long, squarish corners, and the arching is rather flat. Relatively fine-grained Eastern white pine makes up the belly, but the two-piece back and ribs are of beech. Curiously, the soundhole nicks are greatly offset in their vertical alignment and are angled in the opposite direction of normal. Neither plate has purfling, but both are grooved to receive the ribs, which have very small corner blocks. The beech neck extends into the body, where the end is squared off (rather than carved into a footed shape) and glued to a flat, shallow platform carved from the inside of the back. As it terminates into its heel, the curve of the neck is quite gradual, unlike the relatively tight radius that is usually carved in this area. The fingerboard, possibly of beech, painted black, is of the old baroque style, with a long wedge-shaped lower surface to raise it to correct playing height. It is unknown whether Snow had contact with any of the next generation of luthiers in the area, but it is interesting to observe in this one instrument the

37. A violin formerly in the collection of John A. Gould bears a handwritten label reading "Gottfried Leutz Verfertiger / Worcester, Mass. 1767"; see Gould, "Early Violin Makers," 41. Certain inconsistencies, however, suggest that the instrument is not as old as indicated. The date is written in a different ink and by a different hand than the rest of the label. Also, both lines of the original text are centered, whereas the date occupies the lower right-hand corner at a slightly lower level and does not include the faint guideline that is present under the rest of the script. In addition to Leutz's label, there is a printed repair label from 1885 by Ira J. White, but whether White was responsible for amending the original label, and why he would have done so, is uncertain. According to Roy Perkinson, Paper Conservator at the Museum of Fine Arts, Boston, the paper used for Leutz's label appears to be woven, which would have been rare in America in the late 1760s. The instrument is of unrefined construction with square shoulders, nearly circular bouts, and high, abrupt arching. It is a caricature of German work, perhaps made from memory or sketches rather than copied from an instrument close at hand. My thanks to John M. Gould for allowing me to closely examine this instrument, and to Marilyn Wallin for her observations about this and many other violins discussed in this study.

38. See Charles Hudson, *History of the Town of Lexington, Vol. II: Genealogies* (Boston and New York: Houghton Mifflin, 1913), 654. I thank Anne Ireland and Polly Jo Kemler, Curators at the Lexington Historical Society, for sharing information about Snow and allowing me to examine his instrument.

Figure 7. Violin, Simeon Snow, Lexington, Massachusetts, 1779. Lexington Historical Society, Lexington, Massachusetts.

presence of many features found in New England string instruments made through the first third of the nineteenth century.

Benjamin Crehore. The first New England instrument maker to leave behind a considerable body of work was Benjamin Crehore (1765–1831), who worked in Milton, Massachusetts.[39] He was from a family of woodworkers, and developed a reputation as an especially inventive mechanic. Seven bass viols and nine pianos survive from Crehore's shop, although a late nineteenth-century source states that he also made violins, guitars, and drums.[40] As his violins may have resembled his bass viols, it is worthwhile to review features of the latter. His only dated bass viol, labeled 1788 and probably the earliest of his surviving instruments, is of eccentric shape and exceptionally large dimensions; the body is $33^{1}/_{4}$ inches long and the lower bout is $21^{1}/_{2}$ inches wide (fig. 8). None of his other instruments are dated, but they were apparently made between about 1790 and 1810. Three of them approach the size and proportions of European cellos, with body lengths of about $28^{7}/_{8}$ inches, even though their outlines appear to be essentially Crehore's own design, with long middle bouts and flattened ends (fig. 9). The arching on these same three instruments is flat, but well executed. Nearly all of Crehore's bass viols have undergone various alterations, but none shows any evidence of grooved plates. Regular linings are present in all but the 1788 instrument and an example recently discovered in Canton, Massachusetts, which instead have short, close-spaced triangular linings.[41] All show evidence of a footed neck, the projecting part of which was, or is, often shaped to a point. Purfling, when present, is inked, and the backs of the pegboxes are left flat on all but two examples. Soundholes are noticeably elongated on the 1788 and Canton instruments, but quite wide on the other examples.

39. See Darcy Kuronen, "The Musical Instruments of Benjamin Crehore," *Journal of the Museum of Fine Arts, Boston* 4 (1992): 52–79.

40. See Spillane, *American Pianoforte*, 51, who also states that Crehore's work was well known in New York and Philadelphia, although this is uncorroborated by modern research.

41. The Canton instrument, which belongs to the Canton Historical Society (no. M13A) and has an associated bow of the period, came to light after the publication of Kuronen, "Benjamin Crehore," as did another example at the Arlington (Massachusetts) Historical Society (no. 954.10.1). The Canton bass viol has no label, but contains many of the same distinctive features as the 1788 instrument, and is almost certainly by Crehore.

Figure 8. Bass viol, Benjamin Crehore, Dorchester, Massachusetts, 1788. Museum of Fine Arts, Boston, Otis Norcross Fund, 1976.147.

Figure 9. Bass viol, Benjamin Crehore, Milton, Massachusetts, about 1800. Museum of Fine Arts, Boston, Gift of Charles Crehore Cunningham, Sr., 1976.156.

George Catlin. An instrument maker who reportedly produced an even broader range of instruments than Crehore was George Catlin (1778–1852), in Hartford, Connecticut.[42] Nearly all of his surviving instruments are woodwinds, a diverse group for which he is justly noted. Advertisements by Catlin in Hartford newspapers between 1800 and 1805, however, indicate that he also made "violoncellos, bass viols, and violins." Of his stringed instruments, only one bass viol, dated 1806, has been discovered. Its body length approximates that of Crehore's smaller instruments (about $28\,^3/_4$ inches), although the body outline is markedly different, with more rounded shoulders and waist, and less flatness at the ends. The varnish is a very dark red brown, and no purfling is present. The instrument's most unusual feature is its scroll, which, besides being very wide, has a double channel carved all around the surface of the volutes. Regular linings and corner blocks are present, and although the neck has been replaced, it appears that the original was of the footed type. Catlin's name is branded on the back, just below the button.[43]

Abraham Prescott. By the second quarter of the nineteenth century, craftsmen working in southern New Hampshire had become New England's most prolific producers of bowed stringed instruments, creating hundreds of bass viols and double basses, but only occasionally violins. The patriarch of this group was Abraham Prescott (1789–1858), whose life and career are well documented.[44] Born in Deerfield, New Hampshire, he constructed his first bass viol there by 1809 and first double bass in 1820. By 1825 he had taken on the Dearborn brothers, David (1810–1865) and Andrew (1803–1855), as apprentices. Production of instruments steadily increased, and in 1831 Prescott moved his business to nearby Concord, the state capital. The new shop allowed an even more expanded scale of manufacture, at times employing as many as six men, some of whom manufactured only certain components such as tuning

42. See Robert E. Eliason, "George Catlin, Hartford Musical Instrument Maker," this Journal 8 (1982): 16–37 and 9 (1983): 21–52.

43. The instrument was formerly owned by Frederick R. Selch, but was sold at auction at Christie's East in New York City on June 18, 1985 (lot 281); it is illustrated in the sale catalog. I thank the instrument's current owner, Minor Myers, for sharing a description of it.

44. See *Second Massachusetts Charitable Mechanics' Association Catalogue*, 93–96; *Moore's Musical Record* 2, nos. 1 and 2 (November and December 1868), 211–14 and 240–41; William Prescott, *The Prescott Memorial* (Boston: Henry W. Dutton and Son, 1870), 277–79; and Wall, "Abraham Prescott," 101–23.

machines. It has been suggested that the total output of Prescott's shop was as many as 2,400 stringed instruments, although a more conservative estimate proposes about 800.[45]

Ledgers from Prescott's shop reveal that he sold an unspecified number of violins in 1831, though until recently it was not generally believed that he actually made such instruments.[46] A Prescott violin has lately surfaced, however, which provides important insights into his approach to smaller instruments (fig. 10).[47] Pencilled writing on the inside of the back indicates that Prescott made the instrument in Deerfield in 1827, and it bears many of the same features as his bass viols. The plates are grooved to receive the ribs, and no linings or corner blocks are present. The fine-grained spruce belly appears to be constructed from four pieces of stock, while the two-piece back is made of quartered maple with a prominent flame pattern, rather than of the slab-sawn wood found on many of Prescott's early bass viols. A neck with a stubby foot is glued, and possibly screwed, to a platform carved from the back. Running at a slight angle from the bass to the treble side, the bass bar is unusually wide (about $^{3}/_{8}$ in) for a violin. The soundholes are also wide, somewhat elongated, and have nicks angled downward toward the edges of the body. Unlike Prescott's earliest bass viols, the instrument's purfling is not inked, but is instead comprised of a single, bold line of dark wood. The back of the pegbox is finished flat, and the scroll's volutes begin with a sudden inward cut (fig. 11). An ebony cap covers the softwood fingerboard, whose sides are veneered with figured maple. Both the saddle, which is inlaid flush with the belly, and the nut are made of bone. Although quite provincial when compared with classic instruments, the instrument's overall design is nonetheless cohesive and marvelously original.

William Darracott, Jr. Working thirty miles south of Concord, in Milford, New Hampshire, was a jack-of-all-trades named William Darracott, Jr.

45. See ibid., 115; and Wenberg, *American Violin Makers,* 233.

46. See Wall, "Abraham Prescott," 109, which suggests that these violins were made by Prescott's oldest son, Abraham James Prescott (1816–91). The article is not specific about this reasoning, but in a phone conversation, Wall indicated that in all of the Prescott ledgers the name Abraham is only recorded with the sale of these particular instruments, suggesting that someone other than the father was implied. The workmanship on the surviving 1827 instrument is of a higher standard, however, than would likely be expected of an eleven-year-old.

47. I thank the instrument's owner, Farhoud Moshfegh, for allowing me to examine it.

Figure 10. Violin, Abraham Prescott, Deerfield, New Hampshire, 1827. Collection of Farhoud Moshfegh.

Figure 11. Detail of scroll from violin, Abraham Prescott, Deerfield, New Hampshire, 1827. Collection of Farhoud Moshfegh.

(1799–1868). After 1843 he worked primarily as a dentist, but a ledger begun in 1830 records an array of artistic and mechanical projects he undertook, from lettering signs to repairing clocks. Darracott was also well respected for his abilities in creating a variety of musical instruments and their components. He manufactured piano actions for Jonas Chickering in Boston, and tuning machines for Prescott's bass viols. A bass drum, dated 1825 and bearing his name, is also known.[48] Darracott's ledger records sales of several stringed instruments, including bass viols and vio-

48. The drum is owned by the Milford (New Hampshire) Historical Society.

lins. One interesting entry, dated May 1832, documents the sale of an "octave bass viol" for $60 to Samuel Spalding of Wilton, New Hampshire. (Based on its price, this was probably a double bass.) Darracott's interest in violins is said to have stemmed from his acquaintance with Milford native Nathan Adams (1783–1864), who was bandmaster aboard the frigate U.S.S. *Constitution*. Adams supposedly brought an Italian violin back from his travels abroad and gave it to Darracott for repairs.[49]

Two violins labeled by Darracott are known, dated 1828 and 1837, the earlier of which was discovered only recently (fig. 12).[50] The two instruments have slightly different body outlines and soundhole shapes, but both appear to be authentic examples of his work. Both have one-piece backs of slab-cut maple and two-piece bellies; that on the earlier instrument has been microscopically identified as spruce. Their soundbox construction is completely modern, with regular linings, corner blocks, and inlaid purfling. The neck is likewise of modern configuration on the 1837 instrument, with a mortised upper block to receive it. The earlier violin has a replacement neck, however, which was probably added by F. P. Brown, working in South Weymouth, Massachusetts, who added a label to the instrument indicating that he "repaired and improved" it in 1900. It is possible that the 1828 violin's original neck was of the older, footed type, since the instrument also bears what appears to be a new upper block. Fortunately, Darracott's original scroll was grafted to the new neck, preserving distinctive bone buttons that cap the ears. The cutting of the scrolls and soundholes is quite sophisticated on both violins, and the instruments also show the kind of wear that suggests they were played often, and were therefore of good quality. Given the diversity of Darracott's activities, his output of stringed instruments was probably low, but his few surviving examples are certainly of better-than-average quality.[51]

49. Darracott's granddaughter, Anna Melendy Sanderson of Nashua, New Hampshire, related information from his ledger in a 1928 letter to John A. Gould; see Gould, "Early Violin Makers," 28–32. See also Frederick R. Selch, "Darracott, William, Jr.," in *The New Grove Dictionary of American Music* (London and New York: Macmillan Press, Ltd., 1986), 1:580; and Laurence Libin, *American Musical Instruments in the Metropolitan Museum of Art* (New York: W. W. Norton and Company, Inc., 1985), 151–52.

50. I thank the instrument's owner, Farhoud Moshfegh, for allowing me to examine it.

51. The only other documented string instrument made by Darracott is a bass viol, dated 1829, in the Smithsonian Institution's National Museum of American History (no. 73.41).

Figure 12. Violin, William Darracott, Jr., Milford, New Hampshire, 1828. Collection of Farhoud Moshfegh.

Nehemiah White. Nehemiah White (1788–1850) was active during the 1830s in Williamsburg, Massachusetts, located in the Connecticut River Valley about ten miles northwest of Northampton.[52] He made bass viols, but also advertised the making and repairing of double basses, violas, and violins on the label of one of his instruments.[53] A surviving violin by White bears a handwritten label and the number 204, which would suggest a relatively high output if this number is cumulative (fig. 13). The back is made from one piece of maple figured with a faint flame, while the belly is of fine-grained softwood. The purfling is comprised of two inked black lines, interrupted at the top of the back by three pairs of crosses and dots, similar to a pattern found on some regional bass viols.[54] A characteristically steep cut begins the scroll's volutes. The body is constructed with normal linings, but the neck is of the footed type, squared off inside.[55]

Moses A. Tewksbury. Another New Hampshire maker who produced mostly bass viols and double basses, but advertised violins as well, was Moses A. Tewksbury (1787–1860).[56] Tewksbury's name appears several times in Abraham Prescott's account book between December 1832 and February 1835; during the last fifteen months of this period he was apparently a salaried employee.[57] Few surviving instruments by Tewksbury are known, but among them are three bass viols (two dated 1832 and the third dated 1844) and a double bass made about 1835.[58] After working

52. See Selch, "Instrumental Accompaniments," Appendix A, Part I, p. 431.

53. The instrument is a bass viol (numbered 251) from the collection of Frederick R. Selch, which was offered at auction by Christie's East in New York City on June 18, 1985 (lot 286). Another bass viol by White is in the Yale University Collection of Musical Instruments, New Haven, Connecticut (no. 4819.60).

54. See Kuronen, "Benjamin Crehore," 63 and fig. 14.

55. The violin was auctioned by Skinner, Inc., in Boston on November 10, 1996 (lot 339); the auction catalog misspells White's first name as "Nehemieh" in its transcription of the label. I thank the instrument's current owner, James Craig, for corroborating certain facts about it.

56. Although the name is spelled "Tewkesbury" on some extant instrument labels, I have here opted for the spelling found on his gravestone and in civic records.

57. I thank Edward Wall for sharing this information. Since Tewksbury is not mentioned in Prescott's ledgers after 1835, Wenberg's *American Violin Makers* may be incorrect in stating that he worked for Prescott from about 1835 to 1841. It is curious that in the second of two articles about Prescott published in *Moore's Musical Record* (see note 44), no mention is made of Tewksbury among a list of almost one hundred people who had worked for Prescott and his successors since 1820.

58. The two 1832 bass viols are owned by Frederick R. Selch and the 1844 instrument was auctioned by Skinner, Inc., in Boston on November 4, 2001 (lot 408). The double bass is owned by the Atkinson (New Hampshire) Historical Society.

Figure 13. Violin, Nehemiah White, Williamsburg, Massachusetts, 1830s. Collection of James Craig (photograph courtesy of James Craig).

with Prescott, Tewksbury worked, and later died, in Chester, New Hampshire, the location printed on the label of a violin dated 1853 (fig. 14). Despite its relatively late date, the instrument retains many features of the early bass viol tradition. The plates are not grooved, but the linings and corner blocks are extremely narrow. It has a footed neck, and a wide, flat bass bar running at a slight angle from the bass to treble side. The belly is of wide-grain spruce, the back of slab-cut maple, and both plates have traces of inked purfling. Another Tewksbury violin, dated 1840, shows evidence of once having had tuning machines, an unusual feature on violins, but less surprising given the maker's background with bass instruments.[59]

John Gee Pickering. John Gee Pickering (1804–1858) worked in Greenland, New Hampshire (near Portsmouth), and simply stated on his labels that he was a musical instrument maker, although the 1850 Federal census lists his occupation as cabinetmaker.[60] As with Tewksbury and other rural makers, violin building apparently accounted for only a portion of Pickering's livelihood, and he is not survived by a large number of instruments. Howe stated that Pickering made bass viols in the style of Prescott and constructed a "very artistic guitar in 1832 for Ostinelli."[61] No Pickering guitars have come to light, but two bass viols are owned privately.[62] Of greater interest is an 1843 violin, constructed in the modern manner with regular linings, corner blocks, and a mortised neck (fig. 15). The corners are stubby and the arching is only moderately successful, but the soundholes show inspiration from Stradivari, suggesting that

59. I thank Jeanine Head Miller for supplying me with Tewksbury's dates, which were researched by Richard Holmes of Derry, New Hampshire, and with a description of the 1840 violin made by him, which belongs to the Henry Ford Museum and Greenfield Village in Dearborn, Michigan (no. 00.4.3505).

60. I thank Edward Wall for supplying me with Pickering's years of birth and death, and the data from his census listing.

61. See Howe, "Early American Violin Makers," 17. Ostinelli may have been violinist Paul Louis Ostinelli or his wife Sophia (1799–1845), daughter of composer James Hewitt (1770–1827). Sophia is recorded as playing the piano, organ, and harp, but she may have played the guitar as well. After their marriage in 1822, the couple made a concert tour of New England and then lived in Portland, Maine, for a time; see Johnson, *Musical Interludes*, 135 and 151; and John W. Wagner, "Hewitt, Sophia Henrietta Emma (Ostinelli)," in *The New Grove Dictionary of American Music*, 2:381.

62. The instruments are owned by Frederick R. Selch and Edward Wall. A third, unsigned instrument with Pickering's repair label (at the Museum of Fine Arts, Boston, no. 1987.17) bears most of the usual traits of New England bass viols and has brass tuning machines, suggesting that it was made in southern New Hampshire.

Figure 14. Violin, Moses A. Tewksbury, Chester, New Hampshire, 1853. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.8.

Figure 15. Violin, John Gee Pickering, Greenland, New Hampshire, 1843. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.1.

Pickering actually may have studied some instruments of good quality. Generally speaking, though, the instrument's body is massive and overbuilt, with a one-piece maple back displaying wild, crotch-figured grain at its lower end. The violin's most distinctive feature is carved thistles and vines on the pegbox sides, to which Pickering added ebony tuning pegs inlaid with abalone leaves. Such ornamentation is quite uncommon on New England instruments, so one wonders if Pickering had a special reason for adding it.

Samuel Brooks. In the small town of Ashburnham in north-central Massachusetts, Samuel Brooks (1792–1872) built mostly violins and violas, to judge by his surviving instruments, although an advertisement in the 1849 *New England Mercantile Directory* indicates that he made bass instruments as well. Like many other luthiers of rural New England, he also farmed, at least early on in his career. In 1822 Brooks married Ruth Rice, a local woman whose father played the violin.[63] Gould's observations about Brooks's craftsmanship are somewhat indifferent, but he also recorded the comments of Charles E. Farley (1846–1927), a violin maker in New Boston, New Hampshire, who remembered hearing as a boy that Brooks made "the nicest violins in New England."[64] His surviving work bears this out, and if the numbers he assigned to his instruments are indeed cumulative, then he was prolific as well.

Eight instruments by Brooks have been documented: seven violins and a viola. The violins are dated 1838 (no. 9), 1840 (no. 60), 1841 (no. 70; see fig. 16), 1842 (no. 106), 1844 (no. 143), 1846 (no. 170), and 1848 (no. 189). The viola is labeled as "tenor viol no. 12" and dated 1843, so it appears that the numbering of the violas was separate from that of the violins.[65] This sample of Brooks's instruments, most of which have

63. See Ezra S. Stearns, *History of Ashburnham* (Boston: J. E. Farvell & Co., 1887), 328 and 568–69. I am grateful to Ann Cavanaugh, of the Ashburnham Historical Commission, and Patricia H. Frederick for sharing this source with me.

64. See Gould, "Early Violin Makers," 34–35.

65. The 1838 violin is owned by Andrew Dipper, the 1840 by the Fitchburg (Massachusetts) Historical Society, the 1841 by Ron Midgett, the 1842 by Lawrence A. Cavalieri, the 1844 by Philip F. Gura, and the 1848 by David Bromberg. The 1846 violin was auctioned by Skinner, Inc., in Boston on June 3, 1989 (lot 13), and the viola is owned by descendants of John A. Gould. Two additional violins bearing handwritten labels by Brooks are known. Both are unnumbered, but one is dated 1839, owned by Edward Wall, and the other 1849, owned by descendants of John A. Gould. Stylistic differences between these violins and Brooks's other work suggest that he repaired these instruments, rather than made them. The 1849 instrument appears to be a factory-type instrument from Markneukirchen, Germany. I am grateful to the owners of all these instruments for supplying descriptions of them or allowing first-hand examination.

Figure 16. Violin, Samuel Brooks, Ashburnham, Massachusetts, 1841. Collection of Ron Midgett.

apparently undergone little if any alteration, displays a variety of techniques for soundbox assembly. Both the 1838 violin and the 1843 viola have grooved backs to receive the ribs, though the viola also has extremely small and closely-spaced triangular linings. Brooks uses similar linings for the backs of the 1841 and 1848 violins, though their bellies have regular linings and there are no grooves in either plate. The 1840 violin has regular linings and full-size corner blocks throughout. Corner blocks vary in size considerably among the group, and are completely absent in the 1848 violin. Those in the 1841 and 1844 violins and the 1843 viola are very thin, while those in the 1838 violin are slightly larger, but still not full size. A footed-type neck that is simply squared off is used for all of the instruments, as is inked purfling. Taken together, Brooks's instruments reflect a transitional stage between the early bass viol tradition and the modern system of construction.

Although the outline of his instruments seems basically original, Brooks may well have examined some better-quality European instruments, as his arching comes rather close to Italian models. He also took pains in his wood selection: the bellies of his 1841 violin and 1843 viola have been microscopically identified as spruce, rather than locally grown pine. Given his rather remote location and early dates of activity, Brooks's work is of surprisingly high quality.

Peter M. Slocum. Much of New England's earliest string-instrument building was concentrated in Massachusetts and New Hampshire, but a few builders were active in Rhode Island, such as Peter M. Slocum (1795–1837), who worked in Newport. A notice in an undated issue of the Newport newspaper *Herald of the Times* indicates that at some point Slocum was a barber.[66] By 1828, however, he was making instruments, according to the March 27 edition of the *Rhode Island Republican*, which states that he had discovered a method of preparing wood for stringed instruments, including pianos, "in such a manner as to produce a much greater degree of vibration than has been attained since the days of the celebrated instruments of Cremona."

Slocum's surviving bowed string instruments are definitely unusual for their time and place, as they were all made with a so-called cornerless or guitar outline. This shape was tried at various times beginning in the sixteenth century, but probably the best documented instance was a vio-

66. I thank M. Joan Youngken, Curator at the Newport Historical Society, for sharing this and other information about Slocum from their files.

lin presented in 1817 to the French Academy of Sciences by François Chanot (1787–1823), a naval engineer who later studied lutherie. Knowing that vibrations are best propagated in the direction of the grain of the wood, Chanot felt that the cornerless shape was superior because it reduced interruption to the instrument's wood fibers. His acoustic experiments led him to alter several other features of traditional violin building. These included simplifying the soundhole design, eliminating the corner blocks, constructing the rib from one continuous piece, aligning the bass bar down the center of the belly, and positioning the soundpost in front of the bridge, rather than behind. Chanot also made his violins with a backward-curving scroll, which allows easier attachment of the strings to the tuning pegs.[67] How or when news or examples of Chanot's work traveled to America is unknown.[68]

Slocum may have been inspired by Chanot's instruments, but he did not follow his pattern in every detail. A violin made in 1834 and numbered 39 (fig. 17) is a representative example of his work. The forward-facing scroll is overly large and deeply cut. The soundholes are of somewhat traditional shape, though lacking nicks, and the bass bar and soundpost are in the normal positions. The maple back and spruce belly are each made from one piece of wood without any purfling, perhaps to avoid sound-deadening joints, as advocated by Chanot. The rib is also of one continuous piece, glued into grooves in the plates, and the neck is footed. Three other cornerless instruments by Slocum are documented: a violin, a viola, and a cello.[69] No traditionally-shaped violins by Slocum

67. See Vannes, *Dictionnaire Universel*, 58; Sylvette Milliot, *Les luthiers parisiens aux XIXe et XXe siècles, Tome I: Famille Chanot-Chardon* (Spa: Les Amis de la Musique, 1994), 156–61; and Stewart Pollens, *Forgotten Instruments* (Katonah, N.Y.: The Katonah Gallery, 1980), 47.

68. I have examined two cornerless instruments with reverse scrolls that are almost certainly of American manufacture and probably date from the nineteenth century. One is a violin belonging to the Smith College Music Department in Northampton, Massachusetts, and the other is a five-string viola privately owned in Boston. Similar to each other in many ways, they are probably from the same shop, though neither is dated. The viola bears no authentic markings, but the violin contains a fragmentary label that reads "D. E. RAGOT . . . / . . . city of Paris."

69. The viola, dated 1836 and inscribed as made for I. Munro, is in the Newport (Rhode Island) Historical Society (no. 91.7.29). The cello, also from the 1830s, is owned by Frederick R. Selch. A second violin was examined by Edward Wall many years ago, at which time it belonged to a young musician in Maine, but its current whereabouts are unknown. The viola is particularly fine, with a mother-of-pearl nut and star-shaped inlay in the ebony tailpiece. Silver is used to highlight the ears of the scroll and the ends of the tuning pegs, and is also inlaid as position dots on the fingerboard.

Figure 17. Violin, Peter M. Slocum, Newport, Rhode Island, 1834. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.9.

are known, though this is exactly what is depicted on the handsome oval labels contained in his guitar-shaped models.

Thomas Dudley Paine. Two decades after Slocum's brief stint at lutherie, Thomas Dudley Paine (1812–1895) tried his hand at violin making in Woonsocket, Rhode Island. Paine learned to play the violin in his teens, but the first instruments he manufactured, about 1840, were brasses, an area in which he exhibited considerable inventiveness.[70] He ceased making brasswinds by the late 1850s, and is subsequently listed in city directories until 1885 as a jeweler and watchmaker, trades he had learned while in his early twenties. It was not until he was seventy-three years old that Paine listed his profession as violin maker and repairer, even though his earliest known violins are dated 1856, nearly three decades earlier. Three instruments are extant from that year, bearing the numbers 8, 11 (fig. 18), and 13. No violins are known from the following thirty years, but two from his late period bear the dates 1888 (no. 95) and 1892 (no. 110).[71] Paine's obituary in the *Woonsocket Evening Call* states that he made 134 violins, and that at least one sold for $200. It goes on to say that John Stromberg, a well-known orchestra leader in New York, played one of his instruments.

Paine's violins appear to be modeled after French instruments, but the work is heavy and ungraceful, and they are not highly regarded by players or collectors. Among the unusual characteristics of his work are a pronounced scoop carved around the perimeter of the plates, which in extreme cases, such as the 1888 instrument, creates a prominent ridge at the edge. Paine's scrolls are likewise distinctive but inelegant, with exaggerated width for the ears, indistinctly carved channels down the back of the pegbox, and a very fat, elongated lip at the lower end of the pegbox. Internal construction follows modern practice with full-size linings and corner blocks, and mortised necks. No particular improvement is discernable in his later violins, although he began stamping his name along

70. See Robert E. Eliason, *Early American Brass Makers* (Nashville: The Brass Press, 1979), 5–14.

71. Paine's violin no. 8 was collected by John A. Gould and is owned by his descendants, while no. 11 is in the Museum of Fine Arts, Boston (no. 1987.6). No. 95 formerly belonged to the Museum of Fine Arts (no. 1983.344), but was deaccessioned from the Museum collections and auctioned by Skinner, Inc., in Boston on May 6, 2001 (lot no. 270). Nos. 13 and 110 are in the Rhode Island Historical Society in Providence (nos. 1988.13.1 and 1988.14.1); I thank Linda Eppich, Chief Curator, for supplying descriptions of these instruments.

Figure 18. Violin, Thomas Dudley Paine, Woonsocket, Rhode Island, 1856. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.6.

with the instrument's number and year of manufacture on the exterior of the back during this period.

Paine may have had at least one brother, named Asa, who also made violins, but little is known of him. Several instruments labeled by Asa Paine were examined by Gould, who described them as large, with backs made of what was probably red or swamp maple, and bellies that varied in quality. Two violins made by Amasa Paine of Providence, Rhode Island, are also documented. One is dated March 23, 1867, and the other March 11, 1871 (no. 101). The body of the later instrument, like those by Thomas and Asa, is rather long at $14\,^{3}/_{8}$ inches (around 14 inches is considered standard for a violin), but the style of the earlier violin bears little similarity to the known work of the other Paines. The relationship of Amasa Paine to Asa and Thomas is unknown.[72]

The White Family. The brothers Ira Johnson White and Asa Warren White are generally considered the first truly professional violin makers in America, and they were among the first to model their instruments after the work of Stradivari, Amati, and Guarneri. Many of Boston's next generation of violin makers studied and worked with the Whites. Their father was John White, Jr. (born July 14, 1785), from Abington, Massachusetts, who in the early 1800s settled and established a farm in Barre, a town northwest of Worcester. About 1830, John White and family moved to Boston, where he is listed in city directories as a cordwainer (shoemaker) until 1845, and then as a musician until 1859.[73] It is unknown what form his musical employment took, but it is said that when he lived in Barre he taught singing and was sought after as a violinist for dances. Howe stated that John White made about a dozen violins during his lifetime, and described in detail an instrument dating from 1802.[74] It has long been assumed, therefore, that it was the elder White who

72. The 1867 Amasa Paine violin is owned by Dan Holmes, and I thank him for a description of it. The 1871 instrument was formerly owned by Herbert Goodkind and is listed in Kass, "American Stringed Instruments," 81. I thank Mr. Kass for sharing details of this instrument that are not mentioned in his article. Only a brother named Emery A. Paine is recorded by Eliason in *Early American Brass Makers*, 6 and 13, but the family contained ten children altogether.

73. An unpublished study about the Whites was produced by Edward Wall and titled "The John White Family in the Boston Musical Scene, 1829–1935" (Salem, Mass.: copyright by the author, 1978). Wall indicates that John White, Jr., moved to Barre about 1800, whereas Gould gives the year as 1806. I am most grateful to Mr. Wall for sharing his research with me and for granting permission to quote from it.

74. Howe, "Early American Violin Makers," 18.

trained his sons in violin making. According to Gould, however, who knew both Ira White and his son Daniel, John White never made any violins; the closest he came was tinkering in his later years with some pre-cut parts that Ira supplied to him.[75] John White, Jr., died October 10, 1869, probably in Boston.

Ira J. White was born in Barre July 9, 1813, the fourth of nine children (fig. 19). Gould interviewed Ira's son Daniel Maling White (1847–1935), who related the story of his father's beginnings as violin maker. Despite considerable responsibilities on the family farm, Ira's aptitude for woodworking and mechanics were noticed at a young age. From a relative he received a badly damaged violin, which he was told he could borrow and play if he could repair it.[76] Ira successfully restored the instrument and made patterns from it in order to construct another. Unfortunately, the repaired instrument was returned to Boston and Ira's father discouraged him from expending further time on violin making. Determined in his efforts, though, Ira produced his first violin in secret, using material scavenged from various sources around the house. His father conceded the boy's talents were being wasted on the farm and allowed him to go to Boston to pursue a career as an instrument maker.

The substance of this story is probably true, but one wonders whether Ira actually moved to Boston prior to the rest of the family around 1830, by which time he would have been only about seventeen years old. Boston city directories do not list Ira until 1837, and do not give his occupation as musical instrument maker until 1843, but he was active in this profession by 1833, as documented by a violin made that year.[77] An instrument from two years later is of this same early pattern developed

75. See Gould, "Early Violin Makers," 57–59; and Wall, "White Family," 4–5. At exhibitions of the Massachusetts Charitable Mechanics' Association held in 1847 and 1865, violins made by a man named John White were exhibited and awarded diplomas, the instrument at the earlier exhibition said to be the first work of the maker. It is unknown whether this might have been John White, Jr., or perhaps his son, John M. White (born 1811), who was a painter and musician. See also Henry K. Oliver, "Musical Instruments," in *International Exhibition, 1876, Reports and Awards,* 7 (Washington: Government Printing Office, 1880), 49.

76. The violin supposedly belonged to Ira's uncle, Lorenzo, the leader of a dance orchestra in Boston. Ira is not known to have had an uncle by that name, but his oldest brother was named Lorenzo (1808–1834) and was active as a musician and painter in Boston beginning about 1829. (This contradicts Gould's statement that Ira was the eldest son.) Allowing for a slight confusion of names, it is also possible that the violin belonged to a cousin named Loring White (1803–1834), who was the director of the Boston Cotillion Band, active from 1830 to 1837; see Wall, "White Family," 4 and 7.

77. Pictured in Wall, "White Family," fig. III.

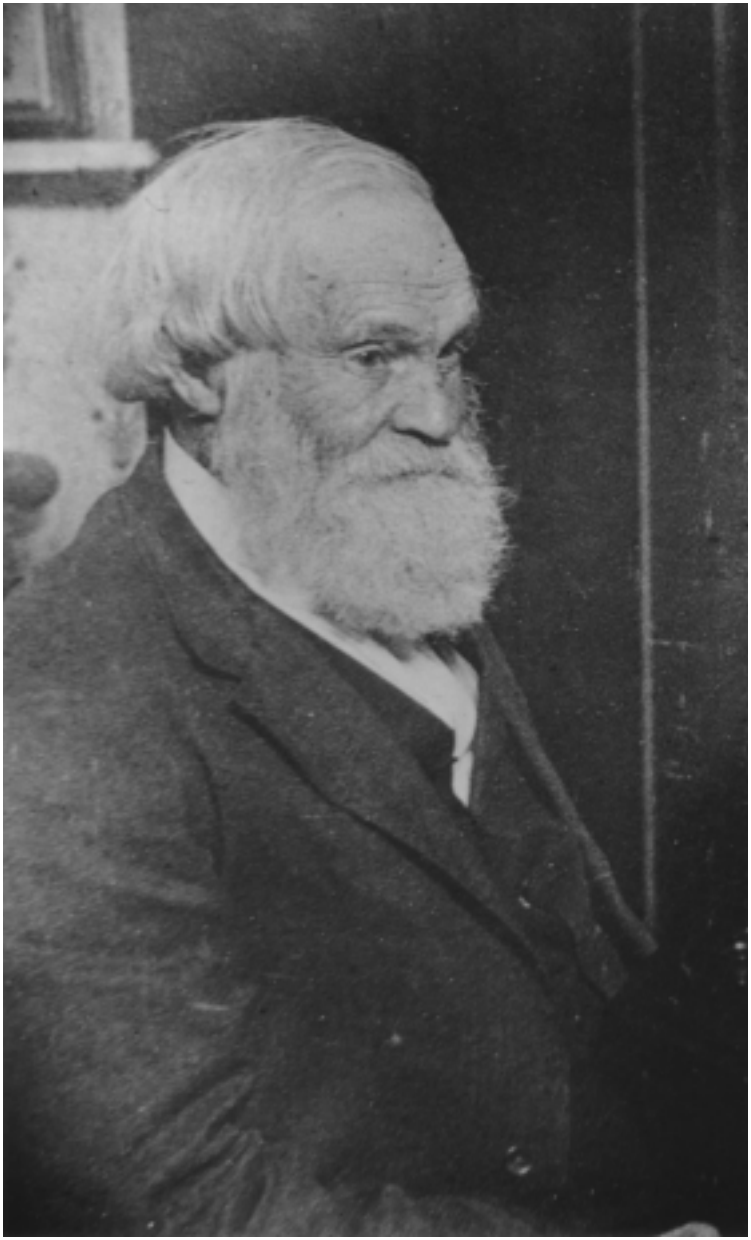

Figure 19. Ira J. White (photograph courtesy of Edward Wall).

by White, but also reveals some familiarity with European instruments (fig. 20). The corners are short and rounded off, and the arching is less successful than his later work. The soundholes exhibit a sharp and classically Stradivarian outline at the bottom, but they are rounded at their upper ends. The scroll is probably the best feature, showing a sure hand. White's early varnish, which is dark brown, has been characterized by some as trying to imitate the appearance of tortoiseshell. Whether White intended that effect is unknown, but the finish does sacrifice transparency for strong contrast, with a great deal of color in the end grain of the spruce belly. Most importantly, this early opus is constructed completely in the modern manner, with no hint of the older bass-viol tradition.

In 1839 Ira White entered a violin in the second exhibition of the Massachusetts Charitable Mechanics' Association in Boston. The judges described it as "well and carefully made, of good materials, and on a good model. Its tone is of a fine quality, full, uniform, and powerful."[78] Despite these favorable remarks, Ira was awarded only a diploma, rather than one of the three higher levels of medals. At the same association's exhibition in 1841, however, he was awarded a silver medal for a violin and viola. In 1844 he garnered another silver medal for a "tenor violin" (probably a viola), and in 1856 a bronze for a group of violins and guitars exhibited in partnership with his younger brother, Warren.[79] It was said that Ira made a violin in 1844 using wood from an old communion table in the Lexington Street Church and from other stock taken from parts of the Old Chauncy Street Church. Stringed instrument makers were always in search of well-seasoned wood, and this reflects yet another instance of this practice in New England.[80]

From 1845 to 1849, city directories list Ira White working at 59 Court Street, the same address as another younger brother, James Henry White (1817–1882). Gould states that James was not a violin maker, but did instrument repairing in addition to working with Boston's Germania Orchestra. The brothers operated an instrument shop together until James left to continue the music business with his son, whose name also was James Henry White (1844–1920), but who was usually known as

78. In the published report of the judges (*Second Massachusetts Charitable Mechanics' Association Catalogue*, 93) the instrument is listed as the work of Ira P. White, which is surely just a typographical error.

79. Asa Warren White is referred to simply as Warren in his birth record, and was apparently known by this name throughout his life. See Wall, "White Family," 11.

80. See also note 25 above.

Figure 20. Violin, Ira J. White, Boston, 1835. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.3.

Henry.[81] In 1850, Ira's brother Warren joined him in partnership, first at 52 Court Street, and from 1853 to 1863 at 86 Tremont Street. According to an advertisement in the 1861 city directory, they sold a wide variety of music, musical instruments (including imports), and accessories at the latter address.[82]

Ira White supposedly never had any formal instruction in violin making. Edmund F. Bryant (1855–1940), a violin maker who studied under Ira, said that the White brothers were woodworkers before they began constructing violins, and that their only training consisted of "their studies of instruments by the old makers whom they used as their models."[83] Howe stated that Ira purchased a Stradivari violin in 1851 for $1000, and used it as the basis for his instruments during the next decade or so. As with many of Howe's assertions, this appears to be untrue. Gould learned from Ira's son Daniel that his father never owned a Strad and never paid a thousand dollars for any violin. Daniel acknowledged that his father did own a Jacob Stainer violin, which Daniel inherited after his father's death, but said that this instrument was never used as a model for any of Ira's violins.[84]

One answer to the question of how and where Ira gained access to a Stradivari violin may be found in the comments of an anonymous writer who published a complaint in *Dwight's Journal of Music* on December 20, 1856 (pp. 90–91). The correspondent was primarily responding to the report of the judges of the eighth exhibition of the Massachusetts Charitable Mechanics' Association, which had been printed in full in the previous issue. He complained about the small amount of attention paid to the few violins on display, including some by the White brothers.[85] In

81. See Gould, "Early Violin Makers," 59; Howe, "Early American Violin Makers," 18; and Ayars, *Contributions to the Art,* 263.

82. Quoted in Ayars, *Contributions to the Art,* 196. A guitar from this period, labeled by the Whites, is privately owned in Massachusetts. According to its owner, it was probably manufactured by the Whites, rather than imported.

83. Ibid., 196.

84. See Howe, "Early American Violin Makers," 18; and Gould, "Early Violin Makers," 58.

85. This was in contrast to the lengthy and detailed comments the judges usually wrote about the numerous pianos that had been exhibited since the event's inception in 1837. Reed organs were given somewhat less attention, while wind and string instruments were sometimes listed with almost no comments whatsoever. The judges could be merciless at times, such as when they remarked on an entry in the sixth exhibition of 1850: "[No.] 1217. Charles Henry Stoddard (15 years old) Boston. One Violin, made with a jackknife and spoke-shave. It would be an improvement to apply a broad-axe to it."

their report, the judges claimed that the instruments in question were not attended by a bow, and they could therefore not assess their tone quality. Their critic queried why, if any of the judges were violinists, their curiosity was so lacking that they were unable to procure a bow from some other source. The writer must have known Ira White personally, since he went on to say that White had told him that a bow was, indeed, supplied with the instruments, one which he had "nicely rosined." More significant, however, is the writer's recollection of the Belgian violin virtuoso Alexandre Artôt (1815–1845), who toured the United States in 1843 and carried with him two violins that cost $3000, one of which was by Stradivari.[86] Artôt apparently met Ira White and, impressed with his work, allowed him to measure the two instruments. The anonymous writer concludes by saying that these measurements became the basis of White's work, "modified by the various Guarneri, Amati, etc., which have since passed through his hands."

Artôt's visit may have marked a turning point not only for White, but for Boston's music scene in general. The exposure of local musicians to professional standards of performance must have greatly stimulated violin playing and the purchase of better quality instruments that could be supplied by makers such as White. Shortly after Artôt's tour, Norwegian violinist Ole Bull (1810–1880) and Belgian violinist Henry Vieuxtemps (1820–1881) made their first concert tours of the United States, further inspiring the country's budding violinists.[87] A violin by White from 1860 shows his approach to copying a Stradivari model (fig. 21). The proportions are a little large, but the instrument is undeniably of a Strad pattern, with arching that is greatly improved from White's earlier work. With this particular violin, White has tried to further the effect of an antique instrument by applying a shaded spirit varnish. His violins of this model were some of the most highly sought in Boston at the time, and he was able to command the high price of $150 for them, according to Edmund F. Bryant.[88]

Howe implies that after 1864 White ceased basing his instruments on the Strad model and began modeling them after Amati. Gould, however, states that White made few Amati copies, although he had seen two or

86. See Alexis Chitty and Manoug Parikian, "Artôt, Alexandre" in *The New Grove Dictionary of Music and Musicians* (London and New York: Macmillan Press, Ltd., 1980), 1:645.

87. Bull's name turns up regularly in the biographical sketches of several American violin makers, whose work he encouraged.

88. See Ayars, *Contributions to the Art*, 196.

Figure 21. Violin, Ira J. White, Boston, 1860. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.4.

three of them that he thought were "really more artistic" than White's other work.[89] Only a handful of Ira White's instruments have been documented, three of which are in public collections.[90] After the termination of his partnership with Warren in 1863, Ira White bought a house on Cedar Street in Malden, just north of Boston, and later moved to Upham Street in nearby Melrose, where he lived and worked until his death in December 1895.

Asa Warren White was born in Barre on August 8, 1826, the youngest child of his family. Though he was apparently known as Warren all of his life, he generally signed his instruments "A. W. White." He presumably learned some of his violin-making skills from his older brother Ira, but both Howe and Gould assert that at about age twenty he was working with a maker named Giradol (or Giraudot) at a music store operated by Henry Prentiss (1801–1860) on Court Street in Boston.[91] As mentioned earlier, Warren was in partnership with Ira from 1850 to 1863, but then opened the Tremont Temple Music Store at 86 Tremont Street, which he operated until about 1869. He was in partnership with Louis Goullaud until 1876, at which time he relocated to 50 Bromfield Street, while Goullaud continued at the Tremont address.[92] In 1879, just after the death of his wife, Elizabeth Reed, White moved to Chicago briefly, but his activities there are undocumented. By 1881 he had returned to Boston to live with his son, Edward (1849–1896), and opened a shop at

89. See Howe, "Early American Violin Makers," 18, and Gould, "Early Violin Makers," 58. An Amati model violin by Ira White, dated 1880, is owned by David Bromberg; see Sturm and Monical, "American Violin Makers," 34; and Bernard Sabatier and Pierre Barthel, *American Luthiers de 1850 à nos jours* (Paris: the authors, 1993), 17 [catalog of an exhibition in Paris at the Grand Palais, April 1993].

90. Besides the two museum-owned violins discussed in the text, there is an Ira White instrument dated 1877 in the Yale University Collection of Musical Instruments, New Haven, Connecticut (no. 4733.62); see Renouf, *Yankee Lyre*, 3–4, and Sturm and Monical, "American Violin Makers," 33. Examples dated 1840 and 1843 are owned by Ron Midgett and Kerry Keane, respectively, while another instrument, dated 1842, was auctioned by Skinner, Inc., in Boston on November 9, 1997 (lot 100). White violins dated 1843 and 1850 are pictured in Wall, "White Family," figs. IV and V, although their owners are not recorded.

91. William Henley, in his *Universal Dictionary of Violin and Bow Makers*, lists a maker named Giradol (no first name) who worked in Barre, Vermont, from 1830 to 1846, and states that his instruments are excellent, although few are known. Prentiss worked at 52 Court Street from 1828 to 1838 and then at number 33 on the same street from 1839 to 1859. From 1834 to 1837 his business is also listed at a second location at Pemberton Hill.

92. See Wall, "White Family," 13.

147 Tremont Street (at the corner of West Street), where he worked until 1888. Gould states that upon leaving Tremont Street, White closed his "city business" and moved to South Boston, where he kept a shop for the next two or three years at 633 East Broadway. He died in November 1894 in extreme poverty, although it is unknown what led to this unfortunate state of affairs.[93]

Warren White participated in the exhibition of the Massachusetts Charitable Mechanics' Association in 1856, while still in partnership with Ira, but it was not until 1874 that he again presented his work there. That year he was awarded a gold medal, but the judges wrote little in their report except that they were impressed by the tone quality and workmanship of his instruments.[94] He garnered a silver medal at the 1878 exhibition, but did not enter any instruments after that year.

Gould relates that by 1868 the demand for violins was so great that White began to import unvarnished instruments from Mittenwald, Germany, which he regraduated, varnished, and sold with a label indicating their source. An 1883 advertisement in *The Apollo* (vol. 1, no. 4) indicates that White was still importing new German and French instruments years later, which he adjusted before resale.[95] The same notice also announced "a line of fine old violins," including instruments from Italy, France, and Germany. White was quite successful in copying fine old Italian instruments, and like his brother he primarily used Stradivari as his model. His advertisement in *The Apollo* indicates that he also constructed instruments after Guarneri, Amati, and Maggini, all of which were available for $75.[96]

One of White's Stradivari model violins, made in 1876, is an especially fine and well-preserved example of his work (fig. 22). The corners are long and expressive, and the arching, edgework, and wood selection are all superb. Size and proportions are correct, and the soft, transparent varnish enhances the overall appearance. Instruments such as this must

93. According to Ayars, *Contributions to the Art,* 197, White was listed at 147 Tremont only until 1883. All sources except Wall, "White Family," which is presumed correct, give 1893 as the year of his death.

94. According to Gould, White was very proud of this medal, though it later mysteriously disappeared.

95. Quoted in Ayars, *Contributions to the Art,* 197. I thank Farhoud Moshfegh for showing me one of these German factory instruments, which bears a label unlike White's regular style.

96. Gould, "Early Violin Makers," 57, states that White's violins were priced between about $55 and $100.

Figure 22. Violin, Asa Warren White, Boston, 1876. Museum of Fine Arts, Boston, Frank B. Bemis Fund, 1987.5.

have helped set the high standards that the Boston school of violin makers continued to achieve into the twentieth century.

Numerous surviving violins by Warren White corroborate the high output suggested by numbers on his labels, the lowest of which is 16, and the highest, 434.[97] He may not have begun numbering until 1872, however, since surviving instruments dated between 1869 to 1871 do not bear numbers.[98] White's prolific output was probably due, in part, to able apprentices working for him at various times. Gould records that White employed "several workman who built up the sides, did the roughing out of the archings, and assisted in repairing and carving the scrolls," continuing, "the finishing and graduating he [White] did himself." Two of White's most notable apprentices were Calvin Baker (active about 1870–1885) and Orin Weeman (1843–1925). It is not certain when Baker began working with White, but it was sometime after the termination of Ira and Warren's partnership in 1863. Weeman worked for White only a short time around 1872, after which Weeman established his own business, which briefly included Baker as a partner. After Baker left Weeman, he set up shop in Braintree, Massachusetts, where he devised a machine for carving the archings of bellies and backs. He supplied some of these machine-carved plates to White, although their edges are said to be heavier than White's own work.[99] A third violin maker who worked with White during his later years was Trefflé Gervais (born 1863), who moved to Boston from Canada in 1877 and opened his own shop in 1898.[100]

97. Thirty surviving instruments by Warren White have been documented to date, though there are surely many more. Several of these are listed in Gould, "Early Violin Makers," 56.

98. Number 16 is dated March 1872 and owned by David Bromberg; see Sturm and Monical, "American Violin Makers," 32; and Sabatier and Barthel, *American Luthiers*, 16. Number 434 was dated a year after White died, so perhaps it was completed by his son, Edward. This instrument was examined by Gould, who recorded eight more White violins that passed through his shop, numbered between 41 and 184, and dated between 1872 and 1876. Wenberg, *American Violin Makers*, 325, records a violin numbered 428 and dated 1891. Of thirty White instruments documented for this study, all but five are from the 1870s, which may have been a banner decade for the maker. Strangely, only one example from the 1880s has surfaced, which was auctioned by Skinner, Inc., in Boston on May 9, 1999 (lot 167). Among his unnumbered violins is one dated August 1869, auctioned by Skinner, Inc., in Boston on November 8, 1992 (lot 203); and a violin and viola, from May and March of 1870, respectively, are pictured in Wall, "White Family," figs. VI and VII.

99. See Gould "Early Violin Makers," 56; and Ayars, *Contributions to the Art*, 202.

100. See Wenberg, *American Violin Makers*, 119.

Besides the four hundred or so violins that White apparently constructed, he is also said to have produced several violas, ten violoncellos, three violas da gamba, two violas d'amore, and a number of guitars.[101] He was issued patents for a violin chinrest in 1869 (pat. no. 96,174), a folding music stand in 1872 (pat. no. 132,704),[102] and a violin bow in 1887 (pat. no. 358,315). The bow design requires two, or preferably three, laminations of wood, which White felt would increase lateral stiffness to the stick without adding weight (fig. 23).[103] White probably found it necessary throughout his career to diversify his business as much as possible by importing and selling instruments besides those he made himself. An advertisement in the 1868–69 *Boston Musical Guide and Musicians' Directory* mentions a variety of wind instruments among his stock in addition to the usual string instruments and accessories.[104]

In 1875 White published a thirty-six page booklet titled *The Violin: Some advice in selecting both the Violin and Bow. How to keep them in order. With a classified list of the old masters.* Intended as an aid to sell his own instruments, the pamphlet offers no particular insight into White's method or work. In 1892, he issued a similar publication, revised and expanded to forty-two pages, which included very brief instructions about constructing and repairing violins. The information is too limited to be of use to a serious instrument maker, but it may have inspired amateur craftsmen.[105]

Isaiah H. Arey. One of the last major violin makers in New England to begin building instruments before the Civil War was Isaiah H. Arey (1826–1870). He worked and died in the town of Boscawen, New Hampshire, near Concord, although his family was originally from Wellfleet, Massachusetts, on Cape Cod.[106] Little else is recorded about Arey's life

101. Ibid. A White cello, dated 1871 and owned by Farhoud Moshfegh, bears a handwritten inscription above its label indicating that it was made for August Suck, a member of the Boston Symphony Orchestra from 1881 to 1885.

102. Regarding White's music stand, see Wall, "White Family," 12.

103. An example of White's patented bow is in the Museum of Fine Arts, Boston (acc. no. 1987.23). Laminated bows had previously been made by French luthier Joseph René Lafleur (1812–1874); see Étienne Vatelot, *Les archets français* (Nancy: Sernor-M. Dufour, 1977), 480. I thank David Bromberg for bringing this to my attention.

104. Quoted in Wall, "White Family," 12.

105. I am grateful to David Bromberg for his observations about this book.

106. Most of what is known about Arey can be found in Gould, "Early Violin Makers," 20–21. Henley's *Dictionary* indicates that Arey was born in Wellfleet, though Gould states that it was Boscawen.

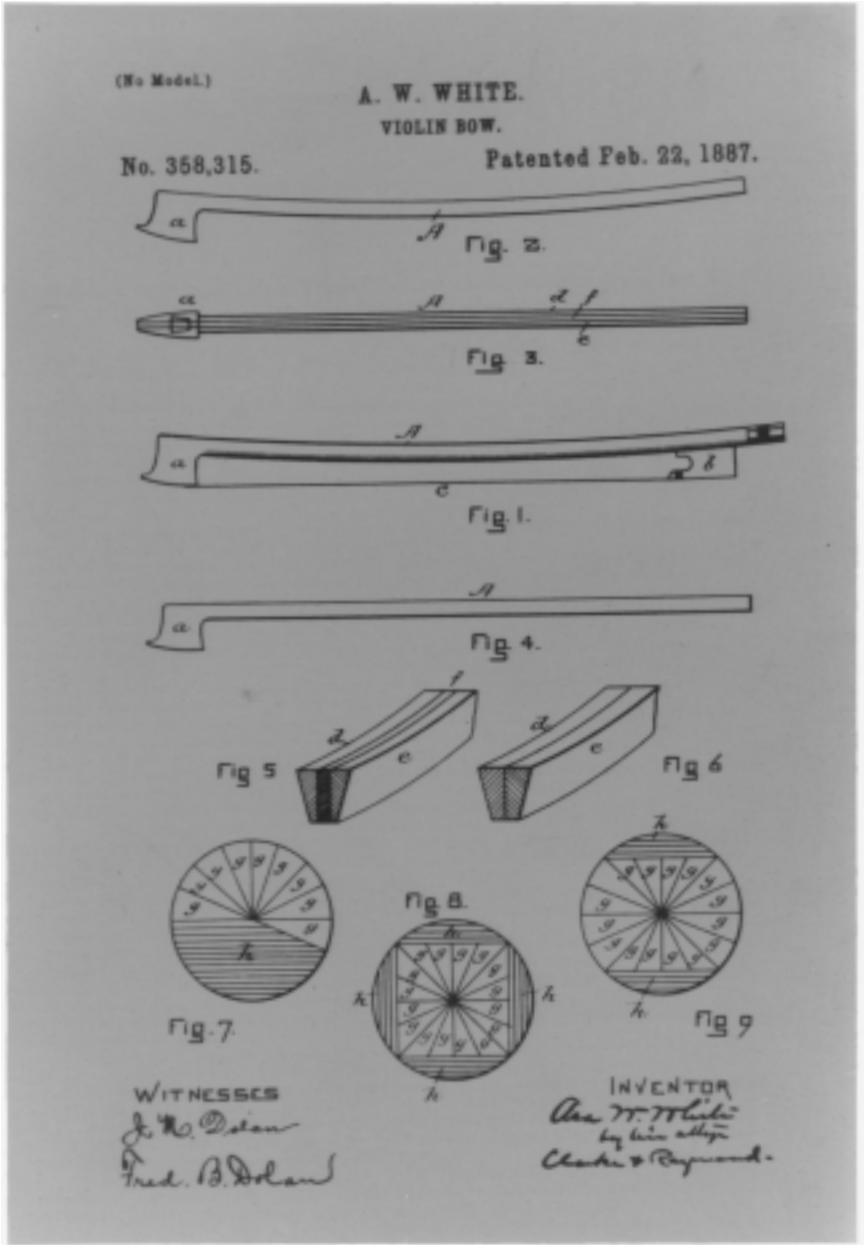

Figure 23. Patent drawing for violin bow, Asa Warren White, Boston, 1887.

except that he was "a very sociable man" and that he died at the age of forty-three after falling from an apple tree. Henley and Gould both commended his instruments, as did Ole Bull. Gould suggests that Arey's reputation would have grown considerably had he lived longer. He exhibited a violin at the eighth exhibition of the Massachusetts Charitable Mechanics' Association in 1856, for which the judges awarded him a diploma, and praised the instrument for being "of very fair quality of tone."

Arey is one of the earliest New England luthiers to emulate the style of Stradivari and Guarneri, but his source for models of their instruments and the nature of his training remain to be discovered. Henley estimates his total output at ninety violins, though few have been located.[107] All sources concur that Arey's work was precise and of high quality, and Henley praises his varnish in particular. Gould, however, criticizes the "dark and opaque" finish he saw on certain instruments, which evidenced a water stain that reversed the grain pattern of the belly and imparted a dull appearance. Strong reversed grain is, indeed, found on an Arey instrument dated 1856 and numbered 41, although its varnish is a light honey brown.[108] The arching of this violin is also flat, which corroborates the comments of Henley and Gould.

Summary and Conclusions

The earliest attempts at making bowed string instruments in New England in the seventeenth and eighteenth centuries were sporadic and provincial. By the early nineteenth century a considerable number of apparently self-taught luthiers were active in the region, although most of their attention was devoted to larger instruments, primarily bass viols that were favored for the accompaniment of sacred music. Violins and violas were seldom produced before the middle of the 1800s, and some of the earliest instruments extant possess the same distinctive traits found in American bass viols. By the 1830s, a few native-born luthiers began to devote themselves to building violins in a style more closely modeled on modern European instruments, while retaining certain features that betray their North American origin. Encouraged by the visits of virtuoso

107. Two Arey violins have been auctioned by Skinner, Inc., in Boston on May 23, 1993 (lot 115), and May 15, 1994 (lot 35, dated 1858).

108. I thank David Bromberg for supplying a description of this violin.

performers from abroad, interest in the violin and its classical repertoire grew in America after the 1840s, and the demand for instruments was met by steadily increasing numbers of violin makers. Notable among these were the White brothers in Boston, who set new standards for violin construction in New England and trained or influenced a number of local makers of the next generation.

After the Whites established a professional violin trade, numerous other local craftsmen took up the business of making, repairing, and selling violins. As a result, Boston became a major American center of violin manufacture until well into the twentieth century. Other urban areas of New England also supported several luthiers during this time, while still other makers were able to carry on business in relatively rural areas. The production methods, output, and relationships of these more recent New England violin makers provide fertile ground for further study.