Development of the Orchestral Snare Drum in the United States

BY JAYSON DOBNEY

The snare drum has been used in the military since its first appearance at the end of the 15th century.[1] In the United States, the drum played an important part in both the Revolutionary War and the War of 1812. By the time of the Civil War, drummers underwent rigorous drilling to learn all of the signals necessary to perform their duties.[2] The drum's primary military use was to communicate signals and commands to troops. The more visible part of the job, playing cadences for marching infantry troops, was only a small portion of a Civil War drummer's duties. Military drummers served as company clocks and performed many cadences, or calls, throughout the day to signal the troops to wake up, eat, work, and go to bed. Only occasionally were the drums used in musical ensembles as entertainment for the troops.

When the snare drum was used in the orchestra, its purpose was to evoke images of the military. Perhaps the most famous use of the snare drum in this manner is in Beethoven's "Wellington's Victory" where snare drums represent the opposing armies. Hector Berlioz, in his *Treatise on Instrumentation* (1848),[3] did not make a distinction between drums used in orchestral playing and those used by military ensembles.

In the United States, the snare drum (or side drum, as it was called) of the mid-19th century was very similar to instruments used in Europe for several hundred years. The drums were usually made of a single piece of wood that had been formed into a cylinder, then glued and tacked to form the shell. Brass shells, though common in Europe, were very rare for drums built in the United States. The snares were held in place either by the counterhoop or by very simple hooks mounted to the shell. A rope, which zigzagged back and forth across the shell, held the counterhoops in place. The player adjusted leather tugs (or ears) that tightened or loosened the rope and controlled the tension on the heads. The drum was worn on a sling that hung at the player's side, hence the name side drum.

In Europe during the first half of the 19th century, drum makers began experimenting with the design of side drums. In 1837, Cornelius Ward, of Marylebone, in the County of Middlesex, England, was granted a British patent for "Improvements on the musical instruments designated drums." As part of the patent, he lists "A mode of dispensing with the use of cords to all drums having two heads." (See Figure 1)

His unusual patent included several new tension designs for drums. One of these was a modified rope-tension drum. In this design Ward shows a rope that passes over pulleys on the counterhoops, along the exterior of the drum shell, and then through small holes into the interior of the drum. A large metal screw inside the drum was attached to a knob protruding through the shell, which allowed the player to adjust the tension for the entire drum. This design was intended for use on all drums, and is illustrated on both a kettledrum and a side drum in the patent. (See Figure 2)

Other drum manufacturers tried their own versions of a modified drum tension system. A drum by Henry Potter, London, made in 1858, now in the collections of the National Music Museum at the University of South Dakota, Vermillion, uses five metal turnbuckles mounted to the batter head counterhoop to adjust the rope and tighten the heads. Potter's design, like Ward's, eliminates the leather tugs. An advantage of this particular design is that it allows the rope to be under greater tension than was possible with the traditional leather tugs. Experimental drums such as this are extremely rare, as very few were probably ever made, and most of those were probably converted to rod-tension drums in order to be of practical use. (See Figure 3)

More important to the development of drums was a second design by Cornelius Ward, also in the 1837 patent, for a rod-tension drum. Although rods had been used on timpani for centuries, seldom had metal rods or screws been applied to

Figure 1: Illustration from Cornelius Ward patent. British Patent Number 7505. 9 December 1837.

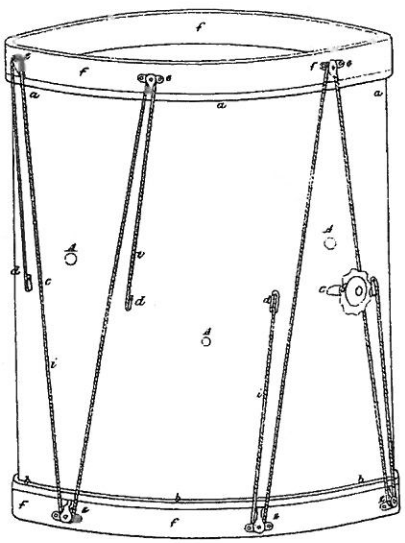
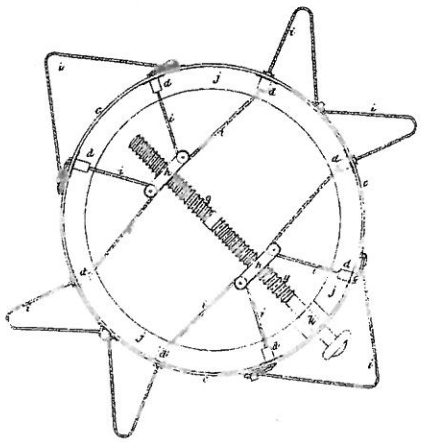


Figure 2: Illustration from Ward patent. Internal view of a timpano with Ward's design. British Patent Number 7505. 9 December 1837.



military drums such as the side drum or bass drum. Ward's patent illustration shows four long rods that clasp over the snare head counterhoop. Knobs mounted on the batter head counterhoop allow the player to adjust the tension on the rods, and thereby on the drumheads.

This invention is a remarkable step forward in the development of drum tension systems. Dispensing with the rope allowed for greater tension to be placed on the heads, resulting in a higher pitched drum with a more articulate sound. Drums with similar tensioning were produced in Europe and the United States well into the 1930s.

Within a few years of this patent, rod-tension snare drums could be found in continental Europe. Georges Kastner illustrates a rod-tension snare drum, as well as rope-tension drums, in his treatise *Manuel général de music militaire* (1848).[4] By 1867 the prominent musical instrument manufacturer and innovator

Figure 3: NMM 10,293. Made by Henry Potter, London, 1858. Photo by Bill Willroth, Sr. National Music Museum, University of South Dakota, Vermillion.

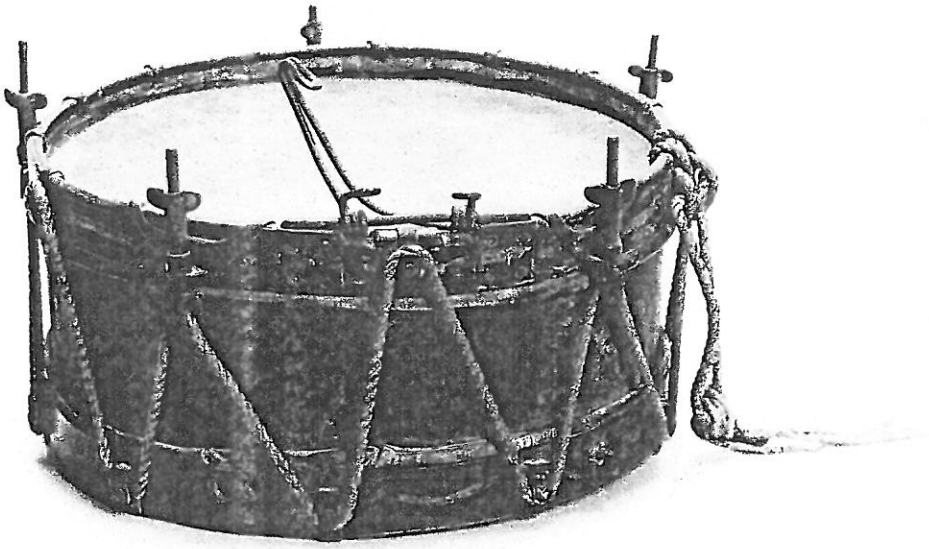
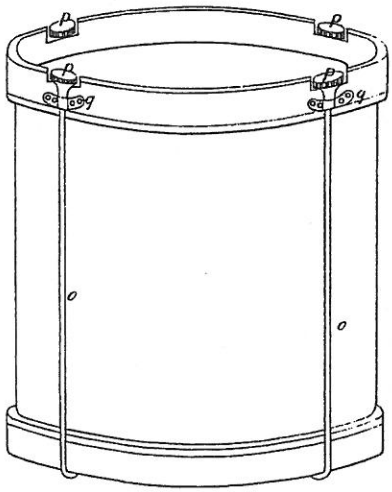


Figure 4: Cornelius Ward patent. Patent Number 7505. 9 December 1837.



Adolph Sax offered rod-tension side, tenor, and bass drums. (See Figure 5)

In the United States, however, the rod-tension side drum doesn't seem to have been used during the mid-19th century. There are hundreds of photographs of bands and drum corps from the Civil War (1861–65), yet none of the known photographs show the use of rod-tension side drums. This is especially curious as American banjos from the same time did utilize this technology. Many times the same makers produced both drums and banjos, as many of the same techniques and materials are used to manufacture both instruments.

One such maker was William Esperance Boucher, Jr., of Baltimore, Maryland. Boucher produced a variety of musical instruments including banjos, violins, guitars, and drums. A banjo in the Smithsonian's National Museum of American History, built in 1845, used a type of tension rod very similar to the rod tension in Ward's drum patent. However, none of Boucher's drums known to survive utilize the same idea.[6] (See Figure 6)

A likely reason for the lack of acceptance of rod-tension drums in the United States was the problem of finding spare parts. A drummer on a long military campaign with a rod-tension drum would have had a difficult, if not impossible, time replacing damaged hardware on his drum. Rope drums were sufficient for military use during the war, and it was not until well after the war that rod-tension drums begin to appear in the United States.

The size of the drum was also changing in many European countries. Drums built in the United States during the first half of the nineteenth century were quite large. Representative drums from the William F. Ludwig II Collection at the National Music Museum include a drum built in 1841 by Eli Brown and Son of Bloomfield, Connecticut, that has a shell height of nineteen and one-half inches with a diameter of eighteen and one-half inches. A second American drum, by William Ent of Germantown, Pennsylvania, about 1850, measures sixteen and one-half inches high with a diameter of sixteen and one-quarter inches.

European drums from the same time were significantly smaller. Three brass-shell instruments from three European countries, also in the National Music Museum, illustrate this fact. An unsigned drum from the second quarter of the 19th century, stamped *BERN* (Switzerland), measures approximately ten and three-quarters inches high and has a diameter of fourteen and one-half inches. A Bavarian drum, built by Kaltenecker and Son, Munich, around 1850, measures eleven and one-quarter inches high and fourteen and one-half inches in diameter. Finally, a Parisian instrument stamped *Colas / 1850*, measures fourteen and one-eighth inches high by approximately fifteen inches in diameter.

Figure 5: Adolph Sax advertisement, 1867. Bass drum, tenor drum, and side drum.[5]

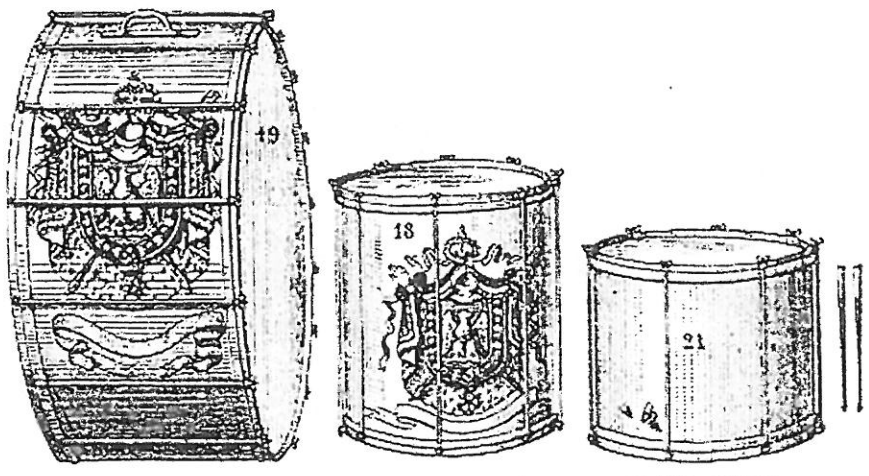
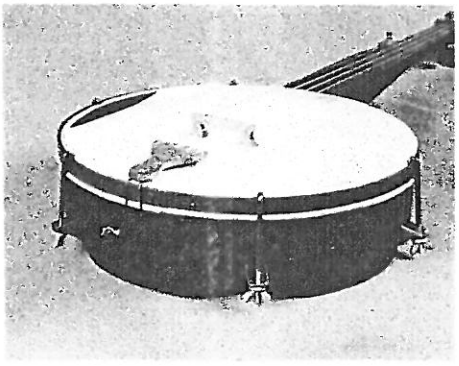


Figure 6: Smithsonian Insitution, National Museum of American History, Behring Center #94765. Banjo by William Esperance Boucher, Baltimore, 1845.



Not only were European drums already smaller than their American counterparts, but they continued to become smaller. By at least the 1850s, British drummers had instruments with extremely shallow shell depths. The Henry Potter drum in Figure 3 has a shell height of only seven and one-half inches. A drum shown in an 1854 patent by Henry Distin has similar dimensions.[7] Smaller drums such as these were soon available in mainland Europe, and were especially fitted to the Prussian army and their unique style of marching.

Prussia was becoming a dominant military power in Europe during the middle of the 19th century. The Prussian parade march or *Paradeschritt* was an unusual, but fierce, march with straightened legs raised high and toes pointed. This style of marching became known as the goose-step, and was still in use by Hitler's troops during World War II.[8] With the introduction of rod tensioning and shallow-shell drums, the Prussian army could use snare drums that had the desired sound and that could be carried easily by a drummer while marching.[9]

These drums were used in Prussia, and later Germany, until the end of World War II. A very late example of this type of drum is in the collections of the National Music Museum. This drum was built by the Sonor Drum Company, Weissenfels an der Saale, Germany, in 1942. The drum has six sturdy metal

tensioning rods that are mounted in eyelets attached to the counterhoops. The shell measures approximately six and one-half inches high and has a diameter of approximately fourteen and one-half inches. A large metal leg rest allows the player to mount the drum in front of the body, instead of hanging it to the side. (See Figure 7)

Prussian drums began to be sold by American importers in the 1870s and '80s, and can be found in catalogs by John F. Stratton, Lyon and Healy, H. C. Barnes, and C. G. Conn from the time. (See Figure 8)

The following was printed in an 1890 Stratton catalog:

> They have Rods with Screw and Key for Tightening Head instead of Cord, Hook for Belt, Knee Rest, Snare Strainer, Two Calfskin Heads, and good Rosewood Sticks. This style of Drum is used altogether in the Prussian Army Bands and Drum Corps, hence the above name.[11]

The drums must have been quite successful, as within a few years American makers were selling their own Prussian-model drums. These drums had slight

Figure 7: NMM 407. Made by Sonor Drum Company, Weissenfels an der Saale, 1942. Photograph by Bill Willroth, Sr. National Music Museum, University of South Dakota, Vermillion.

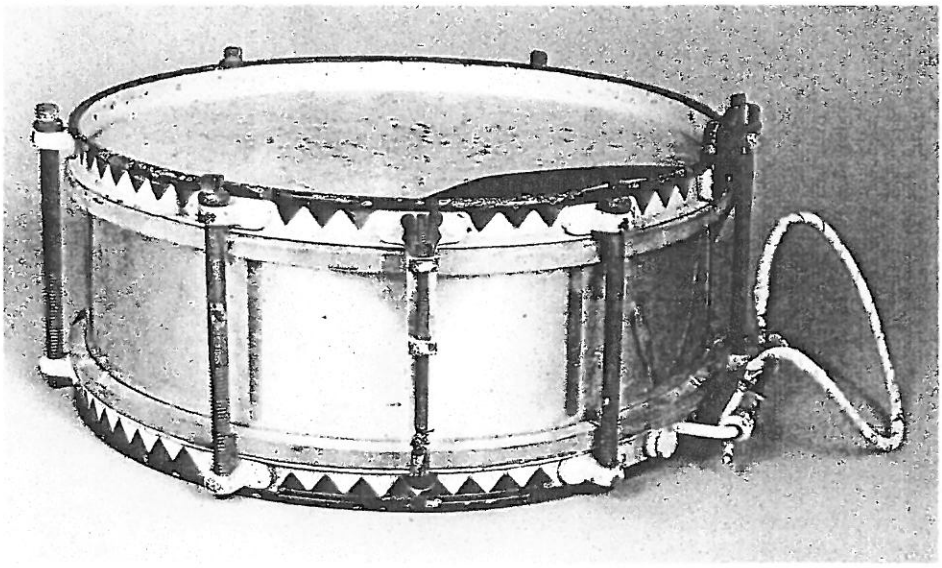
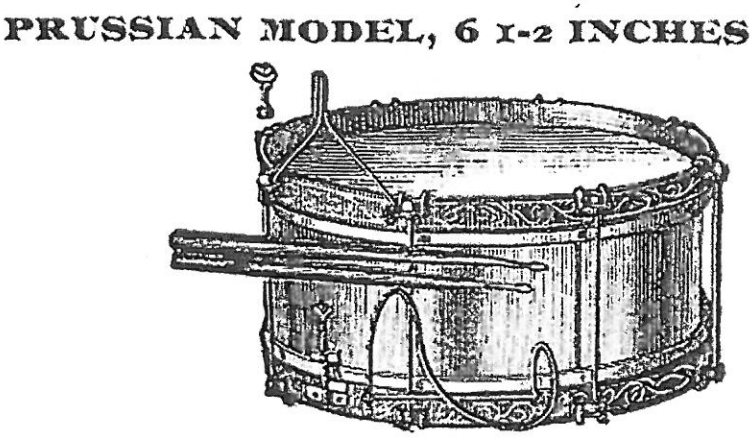


Figure 8: Prussian drum. John F. Stratton & Company Catalog, between 1881 and 1885.[10] Courtesy of the National Music Museum Archives.



variations, but retained the same sturdy tensioning rods, shallow shell height, and leg rest. A typical example can be found in the 1881 catalog from the Lyon and Healy Company. (See Figure 9)

The National Music Museum has a beautiful American Prussian drum with a rosewood shell that dates from around 1900. The museum's instrument is not signed, but the hardware is identical to that found on the Prussian drum featured in the Lyon and Healy catalog. The ash rims are decorated with a painted scroll pattern, and the shell is decorated with an eagle and shield decal. (See Figure 10)

Figure 9: American Prussian drum. Lyon and Healy 1881 catalog.[12] Courtesy of the National Music Museum Archives.

The prevalence of Prussian drums in surviving late 19th-century trade literature suggests that they were the first rod-tension drums available to the average drummer in the United States. American manufacturers and players began to call the drums, which could now be mounted in front of the player and not only at their side, snare drums.

As previously mentioned, most orchestral composers only used side drums to suggest military music, so the same instruments were used both in the concert hall and outdoors. Certainly drummers only owned one drum that they would have used in both marching band and in concert ensembles. Players who owned Prussian drum models would have taken them to concert band and orchestra rehearsals and found that their small size allowed for a softer dynamic range that worked well in those ensembles. Furthermore, the rod-tension drums could achieve a far greater tension that allowed for a better playing response and for more articulate rhythms to be executed.

With an increasing number of concert bands and orchestras in late 19th-century America, and an ever-widening use of percussion in those ensembles, drum makers quickly realized that a new prod-

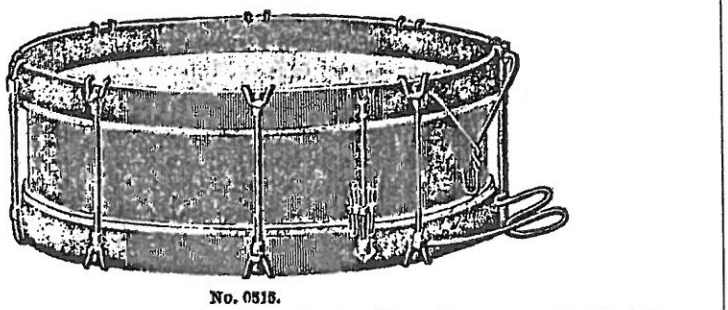
Figure 10. NMM 2876. Prussian drum (leg rest behind drum), attributed to Lyon and Healy, ca. 1900. Photo by Bill Willroth, Sr. National Music Museum. University of South Dakota.

:t, specifically designed and marketed ıor concert use, was needed. There were two types of drums available in the 1881 Lyon and Healy catalog: rope-tension drums, offered with fourteen- and sixteen-inch shell heights; and Prussian model drums, with shell heights of between six and seven inches.[13]

By 1886, Lyon and Healy offered a new product called an orchestra drum. Showing the influence of the Prussian drums, this new drum looked identical to the Lyon and Healy Prussian drums in the same catalog, except that it had a shell height of as little as four inches. The orchestra drum even had the same leg rest. This catalog does not claim that the orchestra drum is a new invention or model, so it may have been available from a competing company even before this point. (See Figure 11)

Within a matter of a few years, all of

Figure 11: Orchestra drum. Illustration from Lyon and Healy catalog, 1886.[14] Courtesy of the National Music Museum Archives.



the musical instrument wholesalers that sold drums were offering shallow-shell drums marketed especially for the orchestral drummer. Most of these companies also used metal rod tensioning on their orchestral models. The growth of vaudeville and the early trap sets prompted experimentation with even shallower shells, and for a while single-head snare drums with a shell height of as small as three inches were produced specifically for these drummers.

Orchestra drums soon were offered in as many options and models as the larger military drums. By the first decade of the twentieth century, drummers and drum manufacturers had a clearly defined concept of an orchestra drum, which was a separate and distinct instrument from those used in outdoor, or marching band ensembles.

END NOTES

1. Jeremy Montagu, *Timpani and Percussion* (New Haven, Connecticut: Yale University Press, 2002), 22.
2. Robert Garofalo and Mark Elrod, *A Pictorial History of Civil War Era Musical Instruments and Military Bands* (Charleston, West Virginia: Pictorial Histories Publishing Co., 1985), 35.
3. Hector Berlioz, *Treatise on instrumentation* (1848; reprint, New York: Kalmus, 1948), 397.
4. Georges Kastner, *Manuel général de music militaire,* (Paris: Didiot Frères, 1848), plate 19.
5. Malou Haine and Ignace De Keyser, *Catalogue des instruments Sax au Musee Instrumental de Bruxelles* (Brussels: Musée instrumental, 1980), 152.
6. The author knows of a bass drum in the collection of Mark Elrod, Germantown, Maryland, ca. 1845, and an eagle drum owned by Fred Benkovic, ca. 1861. (Elrod and Garofalo, 27 and 49). Additionally, there is a side drum at the Maryland Historical Society in Baltimore, and two others in private collections.
7. Distin, H., inventor, *Improvements in drums for musical purposes and in the mode of supporting and keeping them in the required position when in use.,* British patent 7505, 27 May 1854. Measurements are estimated by Jeremy Montagu. Jeremy Montagu, Oxford, e-mail to the author 25 February 2003.
8. Norman Davies, *Europe; A History; A Panorama of Europe, East and West, From the Ice Age to the Cold War, from the Urals to the Gibraltar,* (New York: Harper Perennial, 1997), 612.
9. William F. Ludwig II, Interview by author (Oak Brook, Illinois, 13 June 2002).
10. John F. Stratton, *John F. Stratton & Son Manufacturers of Brass Band Instruments* (New York: John Stratton, ca. 1881–1885), 11.
21. John F. Stratton, *Illustrated and Descriptive Catalogue of Musical Instruments* (New York: John Stratton, ca. 1890), 161.
32. Lyon and Healy, *Illustrated Band Instruments, Trimmings, etc. for Sale By Lyon and Healy* (1881; reprint, Ann Arbor, Michigan: Jack Werner, 1995) 74.
43. Ibid.
54. Lyon and Healy, *Illustrated Catalogue of Drums, Fifes, Flutes, Bugles, Etc.* (Chicago: Lyon & Healy, 1886) 16.

Jayson Dobney is a Fellow in the Department of Musical Instruments at the Metropolitan Museum of Art. He has been a curator at the National Music Museum (2001–2002) and an intern at the Smithsonian Institution's National Museum of American History (2000). He obtained his Master of Music degree with a concentration in the History of Musical Instruments from the University of South Dakota. **PN**

OUTSTANDING CHAPTER PRESIDENT AWARD

Nominations are now being accepted for the 2004 Outstanding Chapter President Award. The winner of this annual award, now in its fourteenth year, will receive an engraved plaque and a $1,000 grant for his or her chapter.

The Outstanding PAS Chapter President Award recognizes individuals who have increased chapter membership and provided percussion events, newsletters and experiences that are beneficial for the continued music education of chapter members.

Nominations should include supportive information and must be received by August 1.

Self nominations are acceptable. Send nominations to PAS, 701 NW Ferris Ave., Lawton, OK 73507-5442 or E-mail: percarts@pas.org