

## Pile Arms

Greg Renault

By the late 18th century the earlier British Army practice of grounding arms in the field had largely been replaced by the practice of piling (or “filing”) muskets.<sup>1</sup> From the 18<sup>th</sup> through the early 19<sup>th</sup> century the standard British method for piling arms was to lock together the ramrods of three muskets to form a pyramid.<sup>2</sup>

The period literature contains two main methods for piling arms, one found in the official manual and platoon exercises, and another apparently widespread practice found in a number of nongovernmental and militia publications. Additionally, the procedure for piling arms differs, depending on whether it is performed in a three-rank or two-rank formation. We will examine each of these variations.

### The official method

Here are the instructions for piling arms contained in the official army drill manual:

*Pile Arms*

*The front and rear rank men of each file face to the right, turn their locks outward, and cross the muzzles and tops of ramrods.*

*The centre rank man places his butt about 30 inches to the left, the lock outwards, and crosses the muzzle of his firelock with those of the front and rear*

---

<sup>1</sup> To PILE arms, to place three musquets, with or without, fixed bayonets, in such a relative position that the butts shall remain firm upon the ground and the muzzles be close together in an oblique direction. This method has been adopted to prevent the injury which was formerly done to musquetry, when the practice of grounding the firelock prevailed. Every recruit should be taught how to pile arms before he is dismissed the drill. [James, *Military Dictionary, Vol II* (1810), n. pag.] Ground arms is absent from the 1804 and subsequent editions of the *Manual and Platoon Exercise*.

Similarly in a U.S. source: *This is practiced when troops are to be dismissed, a short time from parade, and is reckoned a more safe method of securing the arms than grounding, which on wet ground exposes them to dampness.* [E. Hoyt, *Practical Instructions for Military Officers* (Greenfield, MA, John Denio, 1811), pp. 155-6.] Cf. similar comments in *The Military Companion* (Newburyport: Thomas and Whipple, 1810), p. 14.

<sup>2</sup> It appears that the British infantry method for piling arms during this period exclusively uses ramrods. The language for piling arms in the 1816 edition of the sergeant’s manual is unchanged from that of the 1807 edition, or the 1804 edition of the manual and platoon exercises quoted here; the manuals from the 1790s quoted below also pile arms by locking ramrods. The 1823 edition modifies some procedures, including that for piling arms, but still utilizes the ramrods to lock the pieces into the pile. The 1847 version of the sergeant’s manual, *The Infantry Manual*, and the 1859 *Field Exercise and Evolutions of Infantry* both continue to pile arms by locking ramrods.

*rank men, so that both the tops of their ramrods are placed across, between the ramrod and barrel of the centre rank man.*

[*The Manual and Platoon Exercises* (Egerton, reprinted Quebec: John Nelson, 1804), p. 10]

The above language is reproduced exactly in these other manuals:

- *Rules and Regulations for the Manual and Platoon Exercise* (London: Egerton, 1807), p. 29. The Sergeant's version of the officers' *Rules and Regulations for the Formations, Field-Exercise, and Movements of His Majesty's Forces*. The wording remains unchanged in the 1816 printing of the sergeant's manual, p. 26.
- G. Thomas, *The Local Militia Paymaster* (London: Egerton, 1812), p. 49.
- A. Suasso, *A Treatise on the British Drill* (London: Clowes, 1816), p. 107.

### A slight variation

Two non-governmental 1789 publications, *The Complete Drill Sergeant* and Roberts' *Military Instructions*, describe a method that differs slightly from what is described in the official manuals.

*File, or pile Arms,*

*Is done from the **order, Front rank, to the right about, face;** at the same time the centre rank makes a quarter face to the left, and throwing the piece out of the right hand into the left, and bringing the butt against the left heel, with the lock outwards; the rear rank brings his right hand to the muzzle of the piece, and brings the butt against his right heel, with the lock to the rear. The file, by sloping their arms, lock their ramrods in each other, and so complete the file.*

[*The Complete Drill Serjeant* (1798), p. 20]

The above language can also be found in:

- David Roberts, *Military Instructions* (London: Egerton, 1798), p. 30.

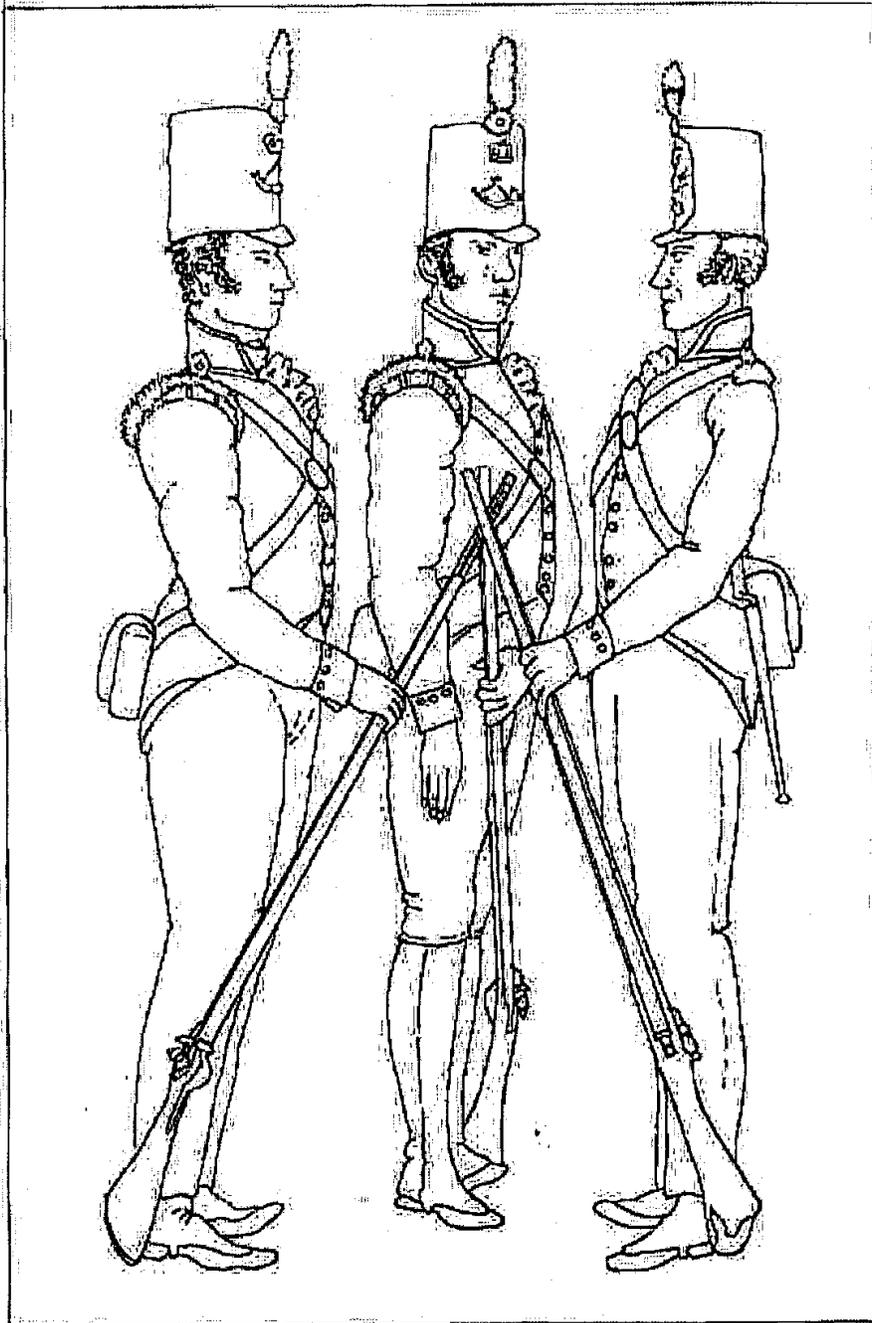
Essentially similar, but not identical, language accompanies the illustration of Pile Arms found in Ackerman, *Loyal Volunteers of London and Environs* (London, 1799), [p. 165], and is found in John Campbell, *The Complete Soldier's Pocket Companion* (Philadelphia, 1798), p. 16.<sup>3</sup>

---

<sup>3</sup> Roberts was a lieutenant and acting adjutant in the 1<sup>st</sup> Regiment, Coldstream Guards, and Campbell was adjutant in the 73<sup>rd</sup> Foot, which suggests that this method of piling arms may have been a common Army practice.

Note that in this variation the front-rank faces about to the rear, so that the front- and rear-rank men face each other, rather than each facing to the right flank as in the regulation method. Also, the front-rank man casts his musket about, transferring it to his left hand and placing it butt next to his left foot. The centre-rank man does the same.

The illustration (ca. 1811) below suggests that this variation persisted into our period.



The above illustration, from Abraham James, *Analytical View of the Manual and Platoon Exercises* (Calcutta, 1811) shows clearly how the front-rank man (on the right of the illustration) has faced to the rear, and placed his musket in his left hand. It also shows clearly that the lock plates of the front and rear-rank men are facing out of the arms pile (i.e., the men face in, the lock plates face out).

The following illustration from R. Ackermann, *Loyal Volunteers of London and Environs* (1799), contains exactly the same features:



These illustrations are so similar that I suspect that James simply copied and updated the Rowlandson engraving in Ackerman.

## Two-rank formation

The two methods for piling arms discussed above describe how this is done in a standard three-rank formation. However, we know that the two-rank formation was often the norm for British infantry in this period. Interestingly, there are no instructions to be found in the official manuals during this period for piling arms when infantry is formed in two ranks. Fortunately, some nongovernmental publications provide useful information.

Manuals slightly earlier than our period contain provisions for piling arms when in a two-rank formation.

*File, or pile Arms,  
... If only two ranks file, the rear must **take open order**; the front to the right about, when they lock arms to the right alternately—that is, two fronts, one rear, and two rear and one front.  
[The Complete Drill Serjeant (1798), p. 20]*

The above language can also be found in:

- David Roberts, *Military Instructions* (London: Egerton, 1798), p. 30.<sup>4</sup>

Eighteen years later, in 1816, Anthony Suasso provides similar instructions:

*When a body is only placed two deep, it must be directed to take open order previous to receiving the word to Pile Arms, which is then executed as before [in the official method], three by three, and successively by a front rank and two rear rank men, and one rear rank and two front rank men. [A. Suasso, A Treatise on the British Drill, p. 107]*

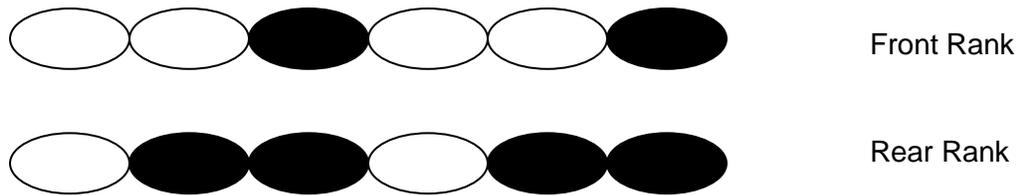
As far as I know, Suasso provides the only description from the 1812 period of how arms were piled in a two-rank formation.<sup>5</sup>

---

<sup>4</sup> \* U.S. writer E. Hoyt, in his 1811 nongovernmental publication, *Practical Instructions for Military Officers* (Greenfield, MA, John Denio, 1811), p. 156, also describes a similar process of piling arms for a two-rank formation, whereby the ranks open order, and the front rank faces to the rear. However, he follows the U.S. practice of using the shanks of fixed bayonets to form the arms pile.

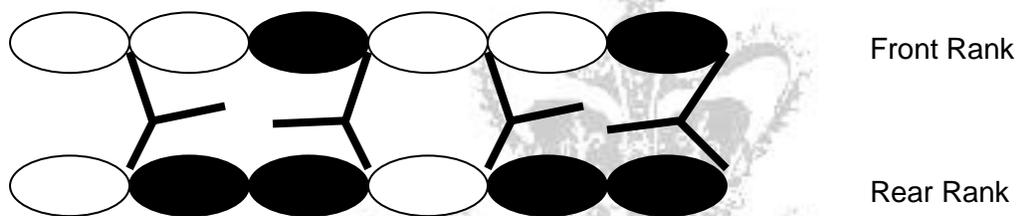
<sup>5</sup> Antonio Lopez Suasso Diaz de Fonseca (1776-1857) entered the British Army in 1811. He served as a captain in the 4/60<sup>th</sup> Foot (West Indies) and the 99<sup>th</sup> Foot (Nova Scotia 1815) according to the Army List. He also lists service in the 55<sup>th</sup> Foot on the title page of the second edition of his work. The first edition of Suasso's *Treatise* was published in 1815, and thus provides us with an immediate postwar description from a company officer with experience in several regiments, 1811-1815, of how arms were piled in a two-rank formation.

The groups of three for piling arms when in a two-rank formation would look thus:



*Ranks open; groups of three highlighted*

The arms piles for this formation would look like this:



*Arms piled; piles alternately lean towards left & right flanks*

It strikes me that the regulation method for piling arms, in which the front and rear ranks face to the right, could be awkward to use when in a two-rank formation. The alternative method, in which the ranks are in open order, with the front rank facing to the rear, might lend itself more readily to the shape of the group of three in a two-rank formation.

### **Stand Clear/Stand to Arms**

The regulation manuals are silent on how to move away from or towards the arms piles. Again, some earlier manuals contain explicit language for stepping away from, and towards the arms piles.

***Stand clear arms.*** *The front rank step back one pace; the centre one, and the rear two. [...]*

***Stand to Arms.*** [Reform ranks on the arms piles?]

***Unfile arms.*** *Each man seizes his piece with his left hand: at the word **Arms**, the front rank faces to the right about, and each man throws his piece from his left hand into his right, and comes to the order.*

[*The Complete Drill Serjeant (1798), p. 20*]

The above language can also be found in:

- David Roberts, *Military Instructions* (London: Egerton, 1798), p. 30.<sup>6</sup>

## When to Pile Arms

I suspect that in the field muskets would be piled whenever the company is not under arms.<sup>7</sup> In barracks I assume that weapons would be *lodged* in arms racks when the company is dismissed; in the field weapons might similarly be lodged in arms bells, where such existed. Lacking the storage bells, arms would likely be piled under the watchful eye of sergeant and sentry. Some period examples follow.

General Crauford's detailed standing orders for the Light Division in the Peninsula, 1809-11, specifically state that when on the march, arms are to be piled when the column halts to rest:

*The Officer Commanding the leading Regiment will sound the halt half an hour after the Column marches off, and afterwards once an hour; each halt to last at least five minutes. **After the men have piled arms**, if a long halt is thought necessary, the Commanding Officer of the Column will direct it.*  
[Section II, Article II, Paragraph 10. My emphasis,].<sup>8</sup>

Crauford's orders also imply that the usual practice upon the conclusion of the day's march was to pile arms in camp at the ground on which the company would be required to form (Section III, Article II, Paragraph 9).<sup>9</sup>

Another source also mentions the battalion piling arms in line at the conclusion of march, prior to forming camp when in the field:

---

<sup>6</sup> Again, Roberts' service in the Life Guards suggests that he was describing then-current Army practice.

<sup>7</sup> Examples of piling arm when not in the field: The Rifle Brigade's "Green Book" notes that when forming the battalion, "*Whenever either companies, or the guard have been inspected, and the parade bugle not sounded, **arms may be piled**, and the men walk about.*" *Regulations for the Rifle Corps, formed at Blatchinton Barracks, under the command of Colonel Manningham August 25<sup>th</sup>, 1800* (London: T. Egerton, 1801), 74. Reprint with commentary by Ben Townsend, Historical Consultant Books, 2015. Exactly the same language occurs in the *Standing Orders and Regulations for the 85<sup>th</sup> Light Infantry* (London: T. Egerton, 1813), 61. The "Green Book" also notes "*On Saturday evenings ... on account of general inspection ... the inspection will be held at treble open order of ranks, **arms piled**, and men in two paces rear [of arms].*" [82]

<sup>8</sup> Crauford, Robert, *Standing Orders as Given out and Enforced by the Late Major-General Robert Crauford, for the use of the Light Division, During the Years 1809, 1810, and 1811*, Campbell and Shaw, eds., (Dublin: Alexander Thom, 1844), p. 12.

<sup>9</sup> *Ibid.*, p. 23. Crauford states that "*If the Arms are not piled on the ground of formation, a stake must be fixed or some other conspicuous mark must be made, on the right and left flank of the ground, on which each Company, when called out, is to form.*" This implies that the usual practice would be to pile arms at the place of formation.

*Article 1. Whenever the Battalion is ordered to encamp, the following arrangement is to take place:-- [...]*

*4. Before the Companies are wheeled back from line, **the arms of each company will be piled** and closed to the wheeling flank, and the line will then be retired four paces, in order to leave four paces clear between the arms and the tents.*

*[Standing Orders for the 1<sup>st</sup>/60<sup>th</sup> Rifles (1826), p. 39. My emphasis.]*<sup>10</sup>

As a final note, the following passage by an officer in the 1<sup>st</sup>/95<sup>th</sup> Rifles describes the typical 1812 march routine in the Peninsula:

*[Upon arriving at the evening bivouac] The alarm post or place of general assembly having been pointed out to every one, the men were dismissed; **the arms were piled**, the cooking immediately commenced, and all further parades dispensed with for the day, except a roll-call about sunset. [Leach, *Recollections and Reflections Relative to the Duties of Troops Composing the Advanced Corps of an Army* (London, 1835). My emphasis.]*

## **Pikes**

Finally, a note about the placement of Sergeants' pikes on the arms piles. In the section on pike drill in his commentary on British drill, Suasso states:

### *Pile Arms*

*In piling arms, after the firelocks are properly fixed, the pikes are generally placed across the muzzles. [A. Suasso, *A Treatise on the British Drill*, p. 271.]*



The practice of piling arms is mentioned throughout the period military literature. Instructions for piling arms are found in all the drill manuals for our period, which suggests it was a useful and much-utilized procedure, one that should be commonly seen at reenactments of period military life.

Toronto  
April 2011; revised May 2015

---

<sup>10</sup> A similar practice is prescribed for U.S. infantry. Cf. Alexander Smyth, *Regulations for the Field Exercise, Manoeuvres, and Conduct of the Infantry of the United States* (Philadelphia: Anthony Finley, 1812), p. 170.

## Sources

A Late Lieutenant in His Majesty's Marine Forces. *The Complete Drill Serjeant*. London: C. Stuart, 1798.

Ackerman, R. *Loyal Volunteers of London and Environs*. London, 1799.

Adjutant General's Office. *Field Exercise and Evolutions of Infantry*. London: W. Clowes, John W. Parker, 1859.

Adjutant General's Office. *The Manual and Platoon Exercises*. Quebec: John Nelson, 1804.

Adjutant General's Office. *The Manual and Platoon Exercises*. Quebec: T. Carey, 1824.

Adjutant General's Office. *The Infantry Manual*. London: Parker, Furnivall, and Parker, 1847.

Adjutant General's Office. *Rules and Regulations for the Formations, Field-Exercise, and Movements of His Majesty's Forces*. Charing Cross: J. Walter, 1798.

Adjutant General's Office. *Rules and Regulations for the Formations, Field-Exercise, and Movements of His Majesty's Forces*. London: T. Egerton, 1811.

Adjutant General's Office. *Rules and Regulations for the Manual and Platoon Exercise*. London: T. Egerton, 1807.

Adjutant General's Office. *Rules and Regulations for the Manual and Platoon Exercise*. London: T. Egerton, 1816.

Campbell, John. *The Complete Soldier's Pocket Companion*. Philadelphia, Thomas Dobson, 1798.

Craufurd, Robert. *Standing Orders as Given out and Enforced by the Late Major-General Robert Craufurd, for the use of the Light Division, During the Years 1809, 1810, and 1811*. Campbell and Shaw, eds, Dublin: Alexander Thom, 1844.

Hoyt, E. *Practical Instructions for Military Officers*. Greenfield, MA: John Denio, 1811.

James, Abraham. *Analytical View of the Manual and Platoon Exercises*. Calcutta, 1811.  
Illustration of Bengal European Regiment soldiers piling arms in Reid, Stuart. *Armies of the East India Company, 1750-1850*. New York: Osprey, 2009.

James, Charles. *A New and Enlarged Military Dictionary*, Vol. II. London: T. Egerton, 1810.

Leach, Jonathan. *Recollections and Reflections Relative to the Duties of Troops Composing the Advanced Corps of an Army*. London: J. Moyes, 1835.

Roberts, David. *Military Instructions*. London: Egerton, 1798.

Smyth, Alexander. *Regulations for the Field Exercise, Manoeuvres, and Conduct of the Infantry of the United States*. Philadelphia: Anthony Finley, 1812.

*Standing Orders for the 1st/60th Rifles*. Limerick: Cornelius O'Brien, 1829.

*Standing Orders and Regulations for the 85<sup>th</sup> Light Infantry*. London: T. Egerton, 1813.

Stewart, William, *Regulations for the Rifle Corps, formed at Blatchinton Barracks, under the command of Colonel Manningham August 25<sup>th</sup>, 1800* (London: T. Egerton, 1801), 74. Reprint with commentary by Ben Townsend, Historical Consultant Books, 2015.

Suasso, Antonio. *A Treatise on the British Drill*. London: Clowes, 1816.

*The Military Companion*. Newburyport: Thomas and Whipple, 1810.

Thomas, George. *The Local Militia Paymaster*. London: Egerton, 1812.



## Pile Arms, Pt. II: Illustrations

Greg Renault

The following pictures illustrate the process of piling arms for a unit in a two-rank formation. In this version the ranks have been opened, and the front rank faced to the rear. The physical process of locking ramrods is the same for both variations of piling arms.

### *Pile Arms*

*The front and rear rank men [...], turn their locks outward, and cross the muzzles and tops of ramrods.*



The view here is from the left flank looking right, so the front rank man is on the left of the picture, facing towards the rear rank. He has passed his musket over to his left hand. Both men turn their muskets so that their lock plates face out of the pile (barrels to the left), they then lean the musket inwards until the ramrods cross.

*The [2<sup>nd</sup> rear] rank man places his butt about 30 inches to the left, the lock outwards, and crosses the muzzle of his firelock with those of the front and rear rank men, so that both the tops of their ramrods are placed across, between the ramrod and barrel of the [2<sup>nd</sup> rear] rank man.*



The picture on the left shows the musket of the 2<sup>nd</sup> rear rank man inserted into the arms pile. The picture on the right, taken from the other side of the arms pile, shows how the barrel is towards the front rank, lock plate up (*“the lock outwards”*).

The picture below, from the same point of view, shows how the crossed ramrods of the first two muskets of the pile are locked between the ramrod and the barrel of the third musket (*“both the tops of their ramrods are placed across, between the ramrod and barrel of the [2<sup>nd</sup> rear] rank man.”*)





Here is the pile as formed with the one front-rank man, and two rear-rank men, as viewed from the left flank. All three muskets have their lock plates up, or facing out of the pile, which places the butt of the musket flat on the ground.

Note that the arms pile “leans” towards the left flank. The next pile, formed by two front-rank men and one rear-rank man, would “lean” towards the right flank, this pattern repeating for every group of three files.

As the second group of three simply inverts the positions of the first group, the above picture also illustrates the second group as viewed from the right flank, with front rank men on the right, and rear rank man on the left. Note that in all cases it is the single person in the group of three that is the one who moves their musket to the left hand to make the arms pile.

## Commands

Here are the commands for piling and unpling arms in a two-rank formation, first using the variant illustrated above, second a reconstruction of Suasso's version of the official method.

(Optional step not in any manual: *Count by threes*. Each group of three files will create two arms piles. The Ones and Threes will be the ones that start the piles by crossing ramrods. The Twos will complete the piles by inserting their muskets in the pile to their right.)

*Prepare to Pile Arms*  
*Rear rank take open order, MARCH*  
*Front rank, right-about, FACE*  
*Pile, ARMS*  
*Stand clear, ARMS*

*Stand to, ARMS*  
*Unpile, ARMS [front rank men automatically face to the front]*  
*Rear rank take Close Order, MARCH*

Per Suasso:

*Prepare to Pile Arms*  
*Rear Rank take Open Order, MARCH*  
*Right, FACE<sup>11</sup>*  
*Pile, ARMS*

*Unpile ARMS*  
*Left FACE*  
*Rear Rank take Close Order, March*

Toronto  
April 2012

---

<sup>11</sup> This is an extremely awkward position for the second man in the rear rank, who has to insert his musket in the pile to his left rear. In recognition of this, the official postwar method for piling arms has this man face left when all the others face right. See Part III below.

## Pile Arms, Pt. III: A Postwar Method

Greg Renault

During the Revolutionary and Napoleonic wars the British Army essentially operated under the system of tactics devised by David Dundas ca. 1790. The last version of the *Rules and Regulations*, the manual on maneuvers for officers, was authorized in 1792, and the last update to the *Manual and Platoon Exercise* was authorized in 1804 (incorporated into a sergeants' manual in 1807). The protracted conflict with France produced a number of widespread, practical field modifications to the official drill repertoire, changes that were not reflected in the authorized manuals. (A familiar example is the maneuver that doubles files to form fours for file marching.)

In 1824 the Army made an attempt to reestablish consistency in its drill. Horse Guards approved new manuals that slightly updated Dundas' system by consolidated some of these field modifications, updating both the manual on maneuvers (*Field Exercise and Evolutions of the Army*) and the *Manual and Platoon Exercises*. Some of the changes adopted for the latter include the move to two pauses between motions of the manual of arms, and adopting the light infantry position of Make Ready for all infantry.

As well, the Army finally authorized a method to pile arms in two ranks. Given that the Army had operated in mostly two-rank formations for fifteen years, but the previous manual only described how to pile arms in three ranks, it may be that the method described in the 1824 manual reflects field practice during the Napoleonic wars.

Text for this method is featured below. (The method for piling arms in a three-rank formation remained unchanged).

### METHOD OF PILING ARMS TWO DEEP.

**Pile Arms.** The Company standing in close order with ordered arms, and told off by threes, the word "Pile" is then given, the whole of the company slip the thumb of the right hand in rear of the barrel of the firelock, at the same time drawing back their right feet, in order to face to their right, with the exceptions of numbers two in the rear rank, they advance their right feet in the hollow of the left, in order to face to the left. The

word "Arms" is then given, the whole of the front rank, and one and three of the rear, face to the right; one and three files of the front rank turn the firelock on the heel of the butt with the sling towards them. One and three files of the rear rank turn the firelock on the heel of the butt with the sling from them, which brings the lock outwards: having done this, they lock their ramrods together, still bearing them well up so as to show an interval. Number two file of the front rank throws his firelock to the rear as he then stands, and brings his left hand on number one muzzle, and completes that pile; having done that, he remains perfectly steady faced to the right; in piling with number three, the front and rear ranks have already locked their ramrods. Number two of the rear rank throws his firelock off to his own rear as he then stands, and completes number three pile, by bringing his left hand on the muzzle of the firelock; having done this he faces to his right-about, and remains steady.

### UNPILE ARMS.

**Unpile Arms.**

At the word "Unpile," the whole advance their right feet in the hollow of the left, and seize their firelocks at the top brass, thumbs pointing upwards, the files numbered two of the rear rank must work well round on the hips to reach their firelocks: at the word "Arms," the whole snatch their firelocks smartly towards them, and front at the same time.

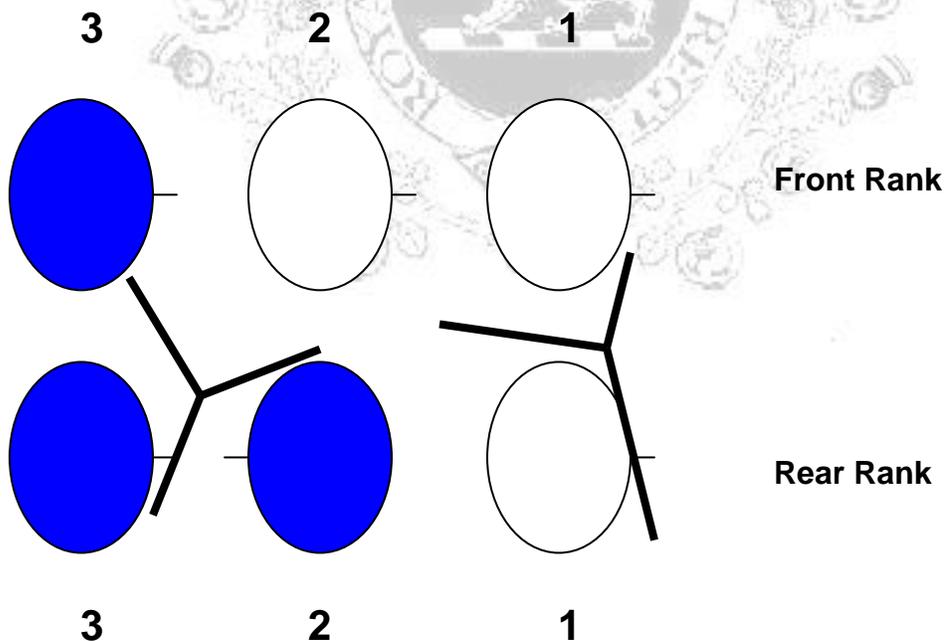
Note that this official 1824 method shares a number of features with the unofficial variant discussed in Parts I and II above.

- This version starts with counting off groups of three files (six men), and that as we saw for the variant method discussed in Part I above, each group uses three men, two from one rank and one from the other, to make two arms piles.

Some differences from the unofficial variant:

- Arms are piled in close order.
- Both ranks face to the right (consistent with the official method for piling arms in three ranks). The facing is done automatically, without separate command.
- The number two men in each group of three files makes a pile with the file to his left; thus the number two man in the rear rank is the only one that faces to the left, when all others face to the right. (Note that when arms are unpiled however, all of the men face to the right.)
- The muskets remain at the right side for all three men when the pile is formed. This will produce piles that “lean” towards the number two man, as with the variant method.

The diagram below illustrates how the groups of three are formed in the 1824 method for piling arms.



The men have faced to the right, except for the number two man in the rear rank, who faced to the left. Note that while the second group of three forms their arms pile in front of them, the first group forms their pile pretty much behind the men of the first file.

The physical method by which the ramrods are locked remains the same as with the previous methods. The musket locks face out, and ramrods lock as illustrated in Part II above. The 1824 version includes a couple of helpful directions. When crossing their ramrods, the ones and threes are “*bearing them well up, so as to show an interval*”, which facilitates the insertion of the third ramrod. The 1824 version also has the number two man steady the pile by placing his left hand on the musket of the man to his left, while he inserts the third musket into the pile.

Commands for this method include automatic facings, so might be something like:

*Prepare to pile arms*  
*In each rank, count THREES*  
*Pile ARMS*

*Unpile ARMS*

As the two-rank formation is faced to the right after arms are piled and before arms are unpiled, an additional command similar to “Stand clear/to Arms” is required to have the men side-step out-of and in-to the arms piles.

Greg Renault  
April 2012

### **Sources**

Adjutant General’s Office. *The Manual and Platoon Exercises*. London: Clowes; reprinted Quebec, T. Cart, 1824.

Torrens, Henry [Adjutant General]. *Field Exercise and Evolutions of the Army*. London: Clowes, 1824.