

PRUSSIAN NEEDLE-GUN.

The Arm that Won the Prussian Victories.

DESCRIPTION OF THE GUN.

The Most Formidable Engine of Destruction in the World.

WHAT MAY BE DONE WITH IT.

Etc., Etc., Etc., Etc., Etc., Etc., Etc.

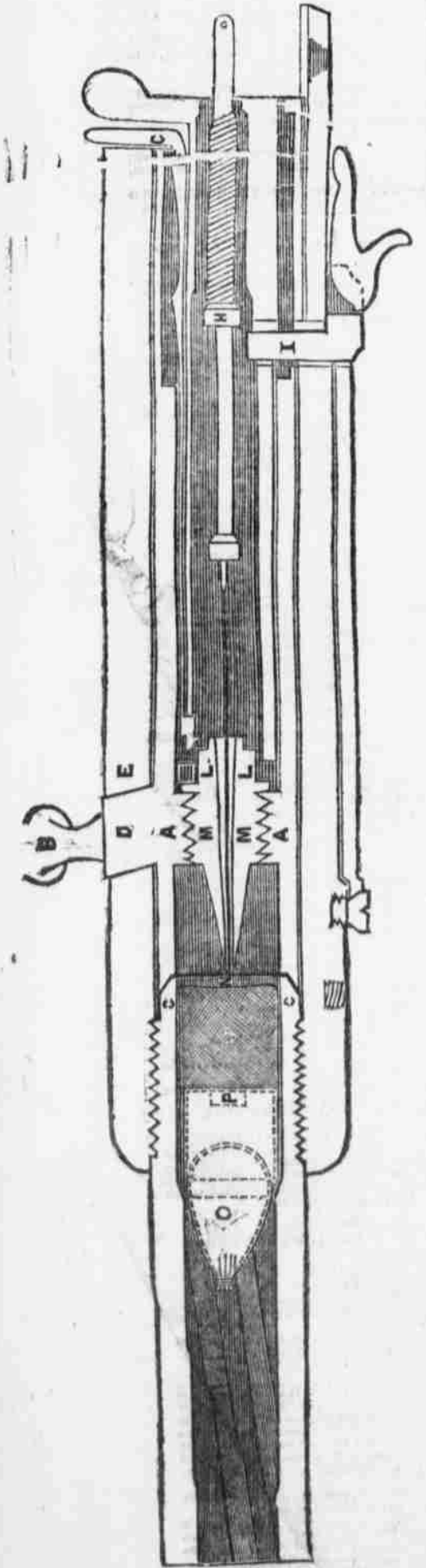
The vast superiority of the Prussian needle gun during the late contest in Bohemia has ceased, as already stated, extraordinary excitement in the military circles of France and England.

"The Prussian rifleman fired about three times before the Austrians, armed only with muzzle-loading rifles, were able to reply."

The results are considered so extraordinary that old military prejudices have entirely vanished before the proved excellence of this weapon, and the needle gun, it is believed, will create quite a revolution in European warfare.

During the Crimean war, it will be remembered, a military commission, consisting of General McClellan, Major Mordecai, and Major Delafield, visited the various European military establishments, and in their reports, subsequently submitted to Congress, we find frequent allusions to the needle-gun.

DESCRIPTION OF THE GUN.



Prussia had, in the meantime, applied herself with great secrecy to the improvement of her infantry arms; and though not unmindful of the systems heretofore, and which remain to be noticed, and actuated by the same motives which led to those of the institution and perfected

a system totally different from any—the system of breech-loading. The arm is known as the "Prussian needle-gun."

The principles of the needle-gun, viz., to insert the charge at the breech, with a view to ease and facility of loading, is by no means novel, it having been employed in the amussite of Marshal Saxe, the arms of Montalembert, of Robert, and of Lejauchoux, as well as in the wall pieces of the French, and in the chamber-loading gun of the Norwegians.

(There are in the Dresden gallery of small arms several of this sort, one of which surprisingly resembles the needle-gun in the method of closing the breech, with the difference that, in place of the chamber being drawn back to load, the barrel is advanced, and that the conical termination of the barrel engages over that of the chamber, both terminations being provided with the half turn of a screw.)

The inventor of the present Prussian needle gun is Mr. Dreyse, manufacturer of arms at Sommerda. As early as 1835 he sought to attain the advantage of ease and facility of loading by closing the breech with two screws behind each other, having a space between them.

The cartridges with spherical balls used with this arm were at first inserted at the muzzle, and had a priming of fulminate at the bottom, which frequently exploded prematurely when rammed too hard, or when the needle projected beyond the inner screw.

These objections induced the projector to insert the cartridge at the breech, and was done in Norway, and hence the new Prussian needle-gun. In reference to the Norwegian breech-loading gun, it may be briefly remarked now, that the barrel is open at the rear, and there is a separate chamber for the charge, with a calibre somewhat larger than that of the barrel.

In the Prussian needle-gun the cartridge is inserted at the rear; the ignition is produced by the intrusion of a needle into the fulminate attached to the cartridge, and the closing of the open barrel is effected by the fitting of the front end of the chamber to the rear of the barrel.

The barrel, the rifled part of which is 36.06 inches long, has a calibre of 0.686 inches, with four grooves, having a twist of five-eighths in the length of the barrel, or an inclination of 88 degrees, 6 minutes, and 17 seconds. The breadth of these is 0.243 inches, and their depth 0.13 inches. The unrifled portion at the rear makes a kind of chamber, or bed of the cartridge, the diameter of which is 0.59 inches, or several hundredths greater than the bore, and the length nearly the same as that of the cartridge.

Over these parts the cylinder, with its six-sided head, is screwed. This is cut out to such a length and breadth on its right side as to admit of easy entrance to the cartridge, whilst to the rear the cut is continued in a zigzag, so that the hind part lies exactly in the middle. Upon the right upper side of the cylinder, at the edge of the broad cut, a reinforce is left sloping towards the head, called the stop, and serves as a point d'appui for the stop or strap of the chamber, hereafter to be described.

The chamber which lies next to the cylinder is reamed out conically at its front end, and thence cylindrical to the depth of 1.38 inch and 0.92 inch in diameter. The part reamed out conically is called the chamber mouth-piece, and its against the rear end of the barrel, with the offset at the top of the cylindrical part, or air-chamber. The air-chamber has the needle-pipe screwed into its breech, which is 0.46 inch thick. The needle-pipe is conical as far as it projects into the air-chamber, and the screw-thread is 0.46 inch long, terminated by a washer; below the washer there is the six-sided prism and a short cylinder. The stop on the outside of the chamber is like the air-chamber breech, of one piece with the chamber, and has the breadth of the zig-zag of the cylinder. The object of the stop is to rest against the stop-head, which it is filed to fit when the chamber is shoved in against the bore and turned to the right. The handle is screwed into the stop for the more convenient service of the chamber. The space behind the breech of the air-chamber serves to receive the lock, to which end the inner rear parts are channelled out. On the under side of the chamber, and in the rear of the air-chamber breech, is the slot of the trigger, and on the upper side is the recess for the nose of the lock.

As already intimated, the lock is inserted in the empty space to the rear of the air-chamber, and contains the needle socket with its needle and spiral spring. It is bored out cylindrically from above to within 1/8 inch of the end, where the part which has the spiral spring is somewhat narrower. The bottom, 0.18 inch thick, is pierced with the hole for the bolt. On the outer upper side of the lock is the recess and the stop for the mainspring, which is held there by the part v. On the opposite side of the lock is

the straight slot for the trigger. The handle projecting behind serves partly for the better detaching of the lock, partly as a support for the mainspring, which is filed at its front end so as to fit in the recess on the inside of the lock, whilst on the under side it has a projecting tooth. The upper rear parts of the spring are furnished with offsets which run in the grooves of the chamber. The part z is called the nose, and serves to disengage it from the rear offset of the chamber. The needle stem is placed with the spiral spring on the inside of the lock, is cylindrical, and has two offsets of the diameter of the lock. The forward offset touches the tooth of the mainspring, which projects inwards; it is reamed out on its front face, and, as it strikes the end of the needle-pipe with force, is covered with gum or caoutchouc. The other middle offset serves as well for a support to the spiral spring as for a trigger in the setting of the lock. The spiral spring bears a weight of ten and a quarter to eleven and a quarter pounds. The needle-socket is bored through its length to receive the needle, which is divided into the needle and its stem. The latter is of brass, and has screw threads cut on the end to screw it into the bolt. The needle is soldered into it to the depth of 0.46 inch.

The trigger spring, with its stop and trigger, is on the under side of the cylinder. The first is several inches long; is fastened at one end by a screw to the cylinder, and has at the other end, on the side next to the cylinder, an upright stop, which reaches through the cylinder, the chamber, and the lock, to the offset of the needle bolt. The projection is filed to receive the trigger.

The trigger itself is a box-shaped, irregular lever, the short arm of which extends in the direction of the spring prolonged. By the pressure of the short arm against the cylinder the stop is drawn down, and releases the offset of the needle-bolt.

The gun is loaded in this way: After it has been brought to a nearly horizontal position, with the butt on the right hip, and the left hand at the lower band, the chamber drawn back from the mouth-piece of the barrel, the cartridge is inserted through the right opening in the cylinder into its place, the chamber (a), again brought up to the mouth-piece (c) by means of the handle (b), and turned to the right. The cylinder is thus made to rest with the stop (d) against the oblique stop-head (e). The chamber being shoved up engages over the mouth-piece of the barrel, and the turn to the right against the sloping face of the stop-head screws it up tight to its place.

The lock, which has projected some what to the rear, is now shoved up into the chamber, by which the notch of the main-spring engages the catch (g) at the inner rear end of the chamber; at the same time the middle offset of the needle-bolt is pressed against the trigger-stop, thus compressing the spiral spring, while the lock is prevented from returning by the catch of the main-spring just referred to.

It is to be observed here that in turning the chambers to the right the hitherto corresponding slots of the trigger-stop are shoved sideways, and the stop enters the cross-cut (f).

Let now the trigger-stop be drawn by pressing on the trigger so as to clear the offset of the needle-bolt. The bolt will dart forward from the effect of the spring, and will strike the square end of the needle-pipe, which projects sufficiently to pass through the powder (o) of the charge, and inflame the fulminate (r). The arm being loaded, to uncock it the lock must be drawn back, pressing on the main-spring.

At the time of the adoption of this new mechanism the cartridge was wholly altered, the sabot being enlarged and placed between the powder and the ball—a half-round cavity being made on the upper side for the ball, and a recess in the under side for the fulminate.

The ball is spherico-conical. The base is a hemisphere, 0.514 inch diameter, upon which is placed a cylinder 0.154 inch high and 0.639 inch diameter, terminated by a right cone 0.584 inch high, with its sides slightly curved. The weight of the ball is 450 grains. The paper sabot is made in this way:—The paper intended for it is cut into strips somewhat broader than the pattern for the sabot requires. A strip is then broken into a long and short part, which are wound on a machine and the ends pasted. The roll being completed and dry, it is pressed between two dies to give it the requisite shape, by which, now called a sabot, it receives at the top and bottom recesses for the ball and the priming, which last is put in afterwards with considerable pressure. The bed of the ball has besides several incisions.

The paper for the cartridge, of a light quality and easily consumed, which is 2.67 inches long and 2.26 inches broad, is wrapped but once around an iron former, slightly tapering, being 0.638 inch above and 0.708 inch below. The lap is pasted and a peculiar and simple bottom made. The completion of the cartridge is not difficult, and is as follows:—The cartridge having been filed and the powder slightly shaken down, the paper sabot is inserted with the priming of fulminate on the powder, the ball placed in the cavity prepared for it, and the cylinder gathered over the ball, but so as to show the point of it. It is dipped, as far as the ball goes, in talow. The charge of powder is 56 grains. The weight of a Prussian needle gun is 10.27 pounds to 11.3 pounds.

The advantages of this arm are:— First. The simplicity of the mechanism, which can be taken apart without screw driver, spring-vice, etc. Second. It can be safely and easily cleaned. Third. The convenience and rapidity of loading in every position, especially in the contracted space of loop-holed walls and on horse-back. Fourth. The certain and uniform filing of the grooves, since the ball has a diameter greater than the calibre. Fifth. The reduced charge consequent on the entire consumption of the powder. Sixth. The ease of the rammer as such. On the other hand the needle-gun has its defects, among which the following are prominent:— First. A waste of ammunition from the ease and rapidity of loading, which can only be guarded against by putting it in the hands of good and experienced marksmen, who know the value of a good and well-timed shot. Second. Weakening of the spiral spring from constant use. Third. A possibility that the needle may not penetrate to the priming, when the powder is packed too closely, or the spiral spring too weak.

STEAM ENGINE PACKING

LUBRICATIVE PACKING, FOR THE STUFFING BOXES OF STEAM ENGINES.

An article recommended by all Railroad Company who have thoroughly tested it, and in general use by over two hundred and fifty Railroads, and on trial over five hundred others.

Seventy-Five Cents Per Pound.

Lubricative Packing Company SOLE MANUFACTURERS.

723 CHESTNUT Street, PHILADELPHIA.

L. G. TILLOTSON & CO. SOLE AGENTS.

26 DEY Street, New York.

SOLE BY DEALERS GENERALLY. 428 Sp

MILLERS STEAM ENGINE PACKING.

This is the main covered body filling, stuffing-box packing.

SIXTY CENTS PER POUND. TAKE NOTICE.

For sale by WILLIAM P. MILLER, Sole Manufacturer for the United States, Rear of 733 1/2 CHESTNUT Street, Philadelphia, Penna.

GROCERIES, ETC.

AMERICAN TEA COMPANY, AMERICAN TEA COMPANY, AMERICAN TEA COMPANY, AMERICAN TEA COMPANY, AMERICAN TEA COMPANY, IMPORTERS OF TEAS.

Have taken the Store

NO. 932 ARCH STREET, NO. 932 ARCH STREET, NO. 932 ARCH STREET.

Chapman's former store, where they have opened an immense stock of the purest

TEAS, COFFEES, AND SPICES.

Which they will sell at the very lowest market prices, WHOLESALE AND RETAIL.

Only the best and purest goods sold. TAKE NOTICE.

POSITIVELY NO MIS-REPRESENTATION

Of an article under any circumstances.

ALL OUR COFFEES ROASTED

Without water, lard, or grease.

The best \$1.00 and \$1.25 Oolong Teas in the country.

Try the Tea Mixture of the American Tea Company, the most delicious in the country, at \$1.25.

The very best uncolored Japanese Teas at \$1.00, \$1.25, and \$1.50.

The best and purest roasted Sic Coffee, at 30 cents; the very best imported, 35 cents.

The best and purest Laguayra, Java, and Jamaica Coffee in the country.

Orders received, and sent free to all parts of the city and country.

THE AMERICAN TEA COMPANY,

710 Arch Street No. 932 ARCH Street.

LONGWORTH'S

DRY CATAWBA WINE.

JUST RECEIVED.

Longworth's Dry Catawba Wine.

FOR SALE BY

SIMON COLTON & CLARKE,

414 1/2 S. W. cor. BROAD and WALNUT.

SNOW FLAKE FLOUR.

THE FINEST IN THE WORLD.

DAVIS & RICHARDS,

ARCH and TENTH Sts.

FOR GOOD BREAD

AWAYS USE

STRATTON'S FAMOUS YEAST.

Wholesale Agent, WARD J. CAFFEY,

712 1/2 S. E. cor. CHESTNUT and FRONT Sts.

EXCURSIONS.

GRAND EXCURSIONS TO WHITE AND GREEN MOUNTAINS—Round trip tickets good until November 1, sold at greatly reduced rates. Via NEW YORK, CONNETT, UTICA, and VERMONT CENTRAL RAILROAD LINE.

Philadelphia to Newport, Vt., and return via Springfield, Lowell Falls, and Stowe. Fare, \$20.00

Philadelphia to Newport, Vt., via Springfield; Newport to outlet Lake Memphremont; outlet to Sherbrooke; Sherbrooke to Quebec; Quebec to Montreal via rail or steamer; Montreal to New York and Philadelphia via Springfield. Fare \$47.25

Philadelphia to Crawford House and return, via Springfield. Fare \$42.25

Philadelphia to Profile House and return, via Springfield, White River Junction, Newport, Wells River, and London. Fare \$42.25

Philadelphia to Burlington via Albany and Saratoga; Burlington to Mt. Auburn; Mt. Auburn to New York; Philadelphia via Lowell Falls and Springfield. Fare \$20.

Philadelphia to Burlington and return same as above, via Lake George. Fare \$29.00

Philadelphia to Mount Mansfield and return. Fare \$26.00

Also, twenty other different routes. Fare, \$25.00

For tickets and further information, apply at the office, No. 45 CHESTNUT Street, under Philadelphia Bank, and opposite the Custom House.

712 Arch Street. N. VAN HORN, Agent.

DELIGHTFUL EXCURSIONS

ON THE SCHUYLKILL.

The steamer

"SILVER WAVE"

Now running from Fairmount to Falls of Schuylkill, will leave Fairmount as follows: viz.—At 7.15, 8.15, 9.30, 10.30, 11.30, 11.55 A. M. And at 12.35, 1.30, 2.35, 3.30, 4.30, 5.30, 6.30, and 6.35 P. M.

Returning, leave the Falls at 7.30, 8.35, 9.30, 10.30, 11.05, 11.50 A. M.; and 12.45, 1.30, 2.35, 3.30, 4.30, 5.05, 5.50, and 6.35 P. M.

FARE.—To Laurel Hill and the Falls, 15 cents; Columbia Bridge or Washington Retreat, 10 cents. Round Trip Tickets to Falls or Laurel Hill, 50 Sp

PLEASANT DAILY EXCURSIONS

along the River to Beverly, Burlington, and Bristol, touching at Riverton, Torresdale, and Andalusia, by the splendid steamer JOHN A. WARREN, leaving Chestnut Street wharf at 2 P. M. Returning, leave Bristol at 4 o'clock, arriving at Philadelphia about 6 o'clock. On SUNDAY leaves Chestnut Street wharf at 12 o'clock P. M., stopping at Magarogee's wharf Kensington. Fare for the Excursion, 40 cents. 77 1/2

GEO. A. COOKE'S COAL EMPORIUM 1314 WASHINGTON AV.

If you want perfect satisfaction in every respect, buy the celebrated PRUSSIAN COAL, Egg and Stone sizes at \$1.25 per ton. Also the PRUSSIAN LITTLE YEAH COAL, same size, same price, and a very fine quality of STEAMING Egg and Stone, at \$1.00 per ton. I keep nothing but the best. Orders receive 1/2 No. 114 South THIRD Street. 7 1/2

PAPER HANGINGS.

HOWELL & BOURKE, MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MANUFACTURERS

MEDICAL.

RHEUMATISM GOUT, NEURALGIA, ASTHMA, CONQUERED AT LAST.

A CURE WARRANTED, OR THE MONEY RETURNED NOTHING RISKED BY TRYING IT.

SUFFERERS FOR YEARS NOTICE USED INWARDLY.

The following wonderful remedy for the positive cure of Rheumatism, Gout, Neuralgia, and Asthma, was discovered after the study and practice of a lifetime by

DR. J. P. FITLER,

One of Philadelphia's oldest practicing physicians, who has made these diseases a specialty, and having fully tested its remarkable curative power for a number of years, now offers it to all afflicted and suffering, with the liberal condition that, in any case can possibly be found that it is in vain power cannot overcome, HE WILL refund to such case or case the full amount paid in the trial of this remedy. In credence as this offer may seem, the proprietor knows full well from experience the merits of the remedy and the safety of his offer.

It contains no Mercury, Colicium, Minerals, Metals, nor anything injurious or unpleasant. Price 50 cents per bottle. Prepared only at the Principal Depot, No. 29 South FOURTH Street, above Chestnut, where Dr. FITLER may be personally consulted, free of charge. Highest references of wonderful cures accompany each bottle.

CERTIFICATES.

Among hundreds of Testimonials of its efficacy, the following respectable gentlemen have kindly consented to answer any inquiries respecting:—wonderful cure of the Great Rheumatic Remedy which may be required of them:— Conrad F. Clothier, Esq., No. 23 N. Water street. William Anspach, Esq., No. 25 N. Third street. Thomas Allen, Esq., Seventh street above Brown. T. B. Dreyer, Esq., No. 622 Chestnut street. George J. Weaver, Esq., No. 1827 Walnut street. Joseph Stevens, No. 533 Owen street. John Ellish, Franklin and Poplar streets. George Landell, Esq., No. 1505 Green street. Samuel W. Jacobs, Esq., Arch st. above Sixth. Michael Weaver, Esq., No. 1506 Green street. Joseph Baker, Esq., 522 E. Fifth street. W. J. Stillwell, Bridgeburg. Joseph (only), Frankford. Rev. J. Hallibur, Vicksburg, Miss. 16 27

DR. SEELYE'S

LIQUID CATARRH REMEDY.