THE MONCRIEFF BATTERY.

Not a Mere Gun-Carriage—"A Fortification in Itself"—Explanation of the Principle and Operation of the Battery.

From the London Spectator, Oct 24.

Those who had never heard anything of the Moncrieff Battery until within the last few months, and who have only half considered the broad questions which this solution of one side of the fortification problem opens out, are probably wondering why so much fuss is being made about a gun-carriage. Those who have been interested in the invention during the ten years of its incubation have for their parts been inclined rather to wonder why a fuss has not been made about it before. Perhaps the British public will come to wonder as these last before the invention is done with; and then not to wonder, when they remember the difficulties which beset the introduction of a new invention and the obstructions which oppose it. Without pausing now to examine, on the one hand, the causes which interfere with the ready and immediate acceptance of every new invention which comes forward, and which would naturally operate with greater force in proportion as the invention is original; and without, on the other hand, recklessly assigning the delay to official obtuseness, we may observe that Captain Moncrieff's invention is sufficiently important to have merited recognition some time ago, and fully to warrant all that is being said about it now. For it is to be noticed at the outset that the invention is not by any means comprized in the expression "a mere gun-carriage." That is exactly what the Moncrieff battery is *not*. It is a battery—a system—a fortification in itself. The carriage is but the material application of the system. To make this clear, we will endeavor in a few words as possible to explain what the invention is designed to effect. The simplest and most primitive form of defense is, we need hardly say, a parapet of earth, or sand, or natural materials. Given such a parapet, the question straightway arises, how shall it be applied to the protection of men and guns? In the case of riflemen there is no difficulty. The soldier remains behind the parapet until he has loaded his rifle and is ready to fire, when he rises up, discharges his piece, exposing himself for a moment, and at once retreats behind the parapet again. This is simple enough, and this is the natural order of defense. The parapet is a fixed shield, from behind which the defender appears only momentarily to strike a blow, exposing him as little as possible. In the case of a gun, however, the problem is less easy of solution. It has not hitherto been found practicable to raise and lower guns weighing many hundredweight or tons as handily and readily as rifles. So the guns have been fixed in position to fire either through the parapet or over it. The first of these systems gives us the embrasure; the second gives us the barbette battery—each with its objections and its advantages. The embrasure obviously constitutes in itself an unprotected point. It is a breach in the continuity of defense, affording a good mark for the enemy's fire, and furnishing a ready means of entrance for shot and shell. But this is not all. The embrasure necessarily restricts greatly the lateral range of the guns, which can only deliver their fire within the angle defined by the splay of its sides. Again, an embrasure is easily destroyed. The breach already commenced is greatly widened by a few well-directed hostile projectiles; even the concussive effect of its own gun, and the gradual deterioration due to rain and weather, in time accomplishes what the enemy may fail to achieve. To meet this last class of objections, and in view of the increasing range, accuracy, and power of rifled ordnance, it has become necessary of late years to supplement the weakness of the primitive earth opening, or the modified weakness of the revetted embrasure, with a shield of some sort. And in an iron age, iron shields naturally presented themselves as a most efficient means of defense. Thus the Gibraltar and Milwall Shields, for example, were designed to close the embrasure, leaving only an opening for the gun to fire through. This, the latest and best form of embrasure, remains, however, an embrasure still—an iron instead of an earthen one. But until the introduction of Moncrieff's system this iron embrasure promised to present the most familiar type of defense. The barbette system consists in raising the gun permanently above the parapet over which it is to fire. By this arrangement the characteristic disadvantages of the embrasure are got rid of. The guns have free lateral play, the parapet is unbroken, and the infantry men behind it are securely protected. But these advantages are obtained at the expense of the gun and the men who have to serve it, for the guns and gunners are scarcely protected at all. Raised above the parapet, they furnish fair marks for the enemy. And so accurate is the fire of modern ordnance and small arms, that practical men have long since deemed that the days of barbette batteries are past. If any one desire the enlightenment of actual experience on this point he has but to read Colonel Von Scheliha's "Treatise on Coast Defense," where he will find among the deductions from the experience acquired in the American war, one to the effect that barbette batteries are nowadays not tenable. And this deduction he will find expressed over and over again. Thus we were left with a choice between two evils. On the one hand, the fettered fire of the embrasure, with its imperfect protection; on the other, the almost total absence of protection afforded by the barbette system. A third plan, it is true, has found some favor—a plan which combines many of the advantages of both the barbette and embrassure—the plan, that is, of revolving cupolas or turrets. By this system free lateral range is obtained and excellent protection. But the cupola has its disadvantages too, the chief one being its enormous cost. Added to this, it is not absolutely invulnerable; the porthole, however small, is an embrasure after all, and thus presents a point, however limited, of attack; and, finally, it is not a pleasant thing to have to fight your gun in a close box, the mechanism of which may get out of order, and either cripple or helplessly expose you. At this point Captain Moncrieff steps in and strikes through the mass of difficulties by treating his gun exactly as if it were a rifle. He goes back to the primitive system of defense, and asks for a simple earth parapet only, by means of which he promises to afford us an almost perfect protection. And this is how he accomplishes his object. He mounts his gun on a small carriage, which rests upon a pair of curved iron elevators or rockers. Under the fore part of these rockers he places a counterweight, slightly in excess of the weight of the gun. We will for the moment suppose the gun to be loaded and ready to fire. It is now *en barbette*, the counterweight being at the bottom of the system, the gun at the top looking over the parapet. The weight being heavier than the gun, the system remains in this position until the gun is fired, when the force of recoil disturbs the equilibrium, recoils the gun backwards upon the elevators, and raises the counterweight. By this act of recoil the gun becomes lowered behind the parapet, and being here held by a simple mechanical contrivance, it is ready for loading, gun, carriage, counterweight, and elevators being completely hidden from the enemy. It is the rifle over again. Up to fire; down to load. When the loading is accomplished the catch is released, the superior weight of the counterweight brings it down and raises the gun into the firing position, whence, after delivering its fire, it again retreats. It will, perhaps, be possible for our readers to gather from this rough general description a fair notion of the main features of the invention. For fuller details they must turn to other sources. Next to the bold but simple conception of treating a huge gun as though it were a rifle, what is most to be admired is the ingenious way in which this conception has been carried out. The end is accomplished without having resorted to any new force or elaborate mechanical contrivance. All that is done is to utilize a force which had hitherto been not only useless, but absolutely hurtful. The force of recoil has always been a great bugbear with artilierists. It has been a destructive, troublesome force, to be got rid of somehow—to be checked by breaks, and buffers, and friction surfaces, to be absorbed by great weight in the gun, by great strength in the carriage, and by stout pivots, and racers, and platforms. But always it has been an agent potent for evil, not for good—one of which artillerymen would gladly be quit. This force Captain Moncrieff has converted into a useful ally, and coaxed into doing invaluable service. He makes it the muscle of his system. It carries down the gun after firing; and, stored up in the counterweight, it raises the gun after loading. No expression better describes what Captain Moncrieff has done than one which he himself used in a lecture some years ago at the Royal United Service Institution. He said that he "set one elephant to tame another." There is something exceedingly beautiful and philosophical in this contrivance; and none the less credit is due to Captain Moncrieff because it seems, now that it has been accomplished, almost self-evident. Inventors out of work must, one would think, be tearing their hair at the thought of how great and obvious an opportunity they have let slip. But it has been done at last, and that with so perfect and careful an adjustment of constructive detail, that the most complete and remarkable success has attended the first trials. Speaking broadly, we may say that in the course of the trials which have this summer and autumn been made with a 64-ton gun, mounted in this way, and giving, with elevators, counterweight, and carriage, a total moving mass of twenty-two tons, no hitch worth mentioning has occurred. The working of the system has proved in all respects admirably satisfactory, far more so than its most sanguine supporters could have expected. The gun has shot accurately; the carriage has worked smoothly; it has proved rapid in operation and surprisingly easy to work, so easy, indeed, that on one occasion a detachment of three men worked the gun and fired five rounds at a moving object with fair rapidity. With larger detachments (ten men and a non-commissioned officer) and a little more experience, a rate of fire of one shot in a minute and three seconds has been attained. The carriage has been covered with sand and dirt, and has still worked satisfactorily. The reflecting sight, by means of which the gun can be laid without exposing a single man, has answered well. And although the trials are not yet completed, but little remains to be done, if anything, to establish the invention as an accomplished success. Even to glance at the many applications of the system and its remarkable advantages would furnish matter for a separate article. But we must notice as briefly as possible the main advantages which will accrue from its adoption. In the first place, the protection which it affords seems all that is to be desired, and very much more than until lately appeared to be attainable. Not a man need be exposed, and the gun itself only appears above the parapet for the few moments necessary to enable it to be laid and deliver its fire. The parapet may be as thick as is thought necessary, and that most efficient of all materials, earth, can be employed. A thick earth parapet may, indeed, be made practically indestructible. We had tolerable evidence of this in the case of the parapets which formed the landward defenses of Sebastopol. The gun derives also incidental protection from the fact that, as it only appears for a moment and leaves no trace of its whereabouts, nothing remains for an enemy to fire at. But Captain Moncrieff propozes to use, on occasion, no parapet at all. He proposes to place his gun in "gun-pits," thus making the natural surface of the ground his parapet. In these cases there is absolutely nothing for an enemy to destroy. When a parapet is used it becomes possible to mount the guns on a travelling carriage on rails, and so to run it along from one part of the work to another. And the uncertain, momentary appearance of a gun over a parapet would be scarcely less embarrassing to an enemy than its sudden and unexpected appearance out of the ground where no defenses are known to exist. The absence of any horizontal strain due to recoil removes the necessity for expensive solid foundations for the platform, in addition to rendering practicable that application of a carriage on rails of which we have spoken. In point of economy the system presents much advantages; costly iron shields or still costlier cupolas will in certain positions be no longer needed. And, owing to the command and free lateral range of the guns mounted in this way, one "Moncrieff" gun would be equal to at least three firing through embrasures. When gun pits are used it would be unnecessary to make them before the actual occasion arose, and thus the plan of a great part of our fortifications would be kept secret, and all the expenses of repair avoided. All that would be necessary would be to decide where guns should be placed in case of need, and to keep a supply of these carriages ready against any emergency. The invention promises to effect a considerable and economical revolution in the science of defense—economical, whether we consider it in regard to the nature of the parapet, the number of guns required, the cost of the defensive and mechanical appliances, and the saving of life; while it must add greatly to the efficiency of the defense, and give it an advantage over the attack which to a defensive power like England can hardly be exaggerated.

NEW PUBLICATIONS.

ENGLISH MEDICAL WORKS.—WILLIS P. HAZARD, No. 728 SANSOM street, will close out the entire stock of Medical Books, mostly London editions of good authors, at less than cost, comprising the Sydenham Society's issues, John Churchill's publications, Cooper's Surgical Dictionary, some excellent French works, etc., etc., to which the attention of physicians is requested.

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RAILROAD LINES.

NORTH PENNSYLVANIA RAILROAD.—THE MIDDLE ROUTE.—Shortest and most direct line to Bethlehem, Easton, Allentown, Mauch Chunk, Hazleton, White Haven, Wilkesbarre, Mahanoy City, Mount Carmel, Pittston, Scranton, Carbondale, and all the points in the Lehigh and Wyoming Coal Region.

Passenger Depot in Philadelphia, N. W. corner of BERKS and AMERICAN streets.

SUMMER ARRANGEMENT.—TRAINS—On and after WEDNESDAY, July 29, 1868, Passenger Trains leave the New Depot, corner of BERKS and AMERICAN streets, daily (Sundays excepted), as follows:—

At 6:45 A. M.—Accommodation for Fort Washington.

At 7:45 A. M.—Morning Express for Bethlehem and Principal Stations on North Pennsylvania Railroad, connecting at Bethlehem with Lehigh Valley and Lehigh and Susquehanna Railroads for Easton, Allentown, Catasauqua, Slatington, Mauch Chunk, Weatherly, Jeanesville, Hazleton, White Haven, Wilkesbarre, Kingston, Pittston, and all points in Lehigh and Wyoming Valleys; also in connection with Lehigh and Mahanoy Railroad for Mahanoy City; and with Catawissa Railroad for Rupert, Danville, Milton, and Williamsport. Arrive at Mauch Chunk at 12:10 P. M.; at Wilkesbarre at 3 P. M.; at Mahanoy City at 3 P. M. Passengers by this train can take the Lehigh Valley Train, passing Bethlehem at 11:55 A. M. for Easton, and points on New Jersey Central Railroad to New York.

At 8:45 A. M.—Accommodation for Doylestown, stopping at all Intermediate Stations. Passengers for Willow Grove, Hatboro and Hatsville, by this train, take Stage at Old York Road.

At 10:20 A. M.—Accommodation for Fort Washington, stopping at Intermediate Stations.

At 1:45 P. M.—Lehigh Valley Express for Bethlehem, Allentown, Mauch Chunk, White Haven, Wilkesbarre, Hazleton, Mahanoy City, Centralia, Shenandoah, Mt. Carmel, Pittston and Scranton, and all points in Mahanoy and Wyoming Coal Regions.

At 2:35 P. M.—Accommodation for Doylestown, stopping at all intermediate stations.

At 3:10 P. M.—Lehigh and Susquehanna Express for Bethlehem, Easton, Allentown, Mauch Chunk, Wilkesbarre, and Scranton.

At 4:15 P. M.—Accommodation for Doylestown, stopping at all intermediate stations. Passengers for Willow Grove, Hatboro, and Hartsville take stage at Abington; for New Hope at Doylestown.

At 5:00 P. M.—Through accommodation for Bethlehem and all stations on main line of North Pennsylvania Railroad, connecting at Bethlehem with Lehigh Valley Lehigh and Susquehanna Evening Train for Easton, Allentown, Mauch Chunk.

At 6:20 P. M.—Accommodation for Lansdale, stopping at all intermediate stations.

At 11:30 P. M.—Accommodation for Fort Washington.

TRAINS ARRIVE IN PHILADELPHIA.

From Bethlehem at 9:00 and 11:05 A. M., 2:00 and 5:20 P. M.

12:45 A. M. and 2:00 P. M. Trains makes direct connection with Lehigh Valley and Lehigh and Susquehanna trains from Easton, Scranton, Wilkesbarre, Mahony City, and Hazleton.

Passengers leaving Wilkesbarre at 1:45 P. M. connect at Bethlehem at 8:05 P. M., and arrive in Philadelphia at 8:20 P. M.

From Doylestown at 8:25 A. M., 8:00 and 7:00 P. M.

From Lansdale at 7:30 A. M.

From Fort Washington at 9:40, 10:45 A. M. and 1 P. M.

ON SUNDAYS.

Philadelphia for Bethlehem at 9:30 A. M.

Philadelphia for Doylestown at 2:00 P. M.

Doylestown for Philadelphia at 7:00 A. M.

Bethlehem for Philadelphia at 4:20 P. M.

Fifth and Sixth Streets Passenger Cars convey passengers to and from the new depot.

White Cars of Second and Third Streets Line and Union Line run within a short distance of the depot.

Tickets must be procured at the Ticket office, in order to secure the lowest rates of fare.

ELLIS CLARK, Agent.

Tickets sold and Baggage checked through to principal points, at Mann's North Pennsylvania Baggage Express Office, No. 105 S. FIFTH Street.

1868.—FOR NEW YORK.—THE CAMDEN AND AMBOY AND PHILADELPHIA AND TRENTON RAILROAD COMPANIES' LINES FROM PHILADELPHIA TO NEW YORK, AND WAY PLACES.

FROM WALNUT STREET WHARF.

At 5:30 A. M., via Camden and Amboy Accom.....2:25
At 8 A. M., via Camden and Jersey City Ex. Mail 3:00
At 2 P. M., via Camden and Amboy Express..... 3:00
At 3:30 P. M., via Camden and Jersey City Express 3:00
At 6 P. M., for Amboy and intermediate stations.
At 7:30 and 8 A. M., 2 and 3:30 P. M. for Freehold.
At 8 and 10 A. M., 2, 3:30, and 4:30 P. M. for Trenton.
At 5:30, 8, and 10 A. M., 1, 2, 3, 3:30, 4:30, 6, and 11:30 P. M. for Bordentown, Burlington, Beverly, and Delanco.
At 5:30 and 10 A. M., 1, 2, 3, 3:30, 4:30, 6, and 11:30 P. M. for Florence.
At 5:30 and 10 A. M., 1, 3, 4:30, 6, and 11:30 P. M. for Edgewater, Riverside, Riverton, and Palmyra. 2 P. M. for Riverton and 3:30 P. M. for Palmyra.
At 5:30 and 10 A. M., 1, 3, 4:30, 6, and 11:30 P. M. for Pine House.
The 1 and 11:30 P. M. Lines leave from Market street Ferry (upper side.)

FROM KENSINGTON DEPOT.

At 11 A. M., via Kensington and Jersey City, New York Express Line. Fare $3.

At 7:30 and 11 A. M., 2:30, 3:30, and 5 P. M. for Trenton and Bristol. And at 10:15 A. M. for Bristol.

At 7:30 and 11 A. M., 2:30, and 5 P. M. for Morrisville and Tullytown.

At 7:30 and 10:15 A. M. and 2:30, and 5 P. M. for Scheuck's and Edgington.

At 7:30 and 10:15 A. M., 2:30, 4, 5, and 6 P. M. for Cornwell's, Torresdale, Holmesburg, Tacony, Wissinoming, Bridesburg, and Frankford, and at 3 P. M. for Holmesburg and intermediate Stations.

FROM WEST PHILADELPHIA DEPOT, Via Connecting Railway.

At 9:20 A. M., 4, 6:30, and 12 P. M. New York Express Lines, via Jersey City; Fare, $4 25

At 1 A. M. Emigrant Line; Fare, $3.

At 1:30 A. M. on Mondays only—New York Express Line; Fare, $3 25.

The 9:20 A. M., and 6:30 P. M. Lines will run daily. All others, Sundays excepted.

At 9:20 A. M., 1, 6:30, and 12 P. M., for Trenton.

At 9:20 A. M., 6:30 and 12 P. M., for Bristol.

At 12 P. M. (Night), for Morrisville Tullytown, Scheuck's, Edgington, Cornwell's Torresdale, Holmesburg, Tacony, Wissinoming, Bridesburg, and Frankford.

For Lines leaving Kensington depot take the cars on Third or Fifth streets, at Chestnut, 30 minutes before departure. The cars of Market Street Railway run direct to West Philadelphia Depot, Chestnut and Walnut within one square. On Sundays the Market Street cars will run to connect with the 9:30 A. M. and 6:30 P. M. Lines.

BELVIDERE DELAWARE RAILROAD LINES, FROM KENSINGTON DEPOT.

At 7:30 A. M. for Niagara Falls, Buffalo, Dunkirk, Elmira, Ithaca, Owego, Rochester, Binghamton, Oswego, Syracuse, Great Bend, Montrose, Wilkesbarre, Scranton, Stroudsburg, Water Gap, Schooley's Mountain, etc.

At 7:30 A. M. and 3:30 P. M. for Belvidere, Easton, Lambertville, Flemington, etc. The 3:30 P. M. Line connects direct with the Train leaving Easton for South Chunk, Allentown, Bethlehem, etc.

At 5 P. M. for Lambertville and intermediate Stations.

CAMDEN AND BURLINGTON COUNTY AND PEMBERTON AND HIGHTSTOWN RAILROADS.

FROM MARKET STREET FERRY (Upper Side)

At 7 and 10 A. M., 1, 3:30, and 5:30 P. M., for Merchantville, Moorestown, Hartford, Masonville, Lumberton, Mount Holly, Smithville, Ewansville, Vincentown, Birmingham, and Pemberton.

At 7 A. M., 1 and 3:30 P. M., for Lewistown, Wrightstown, Cookstown, New Egypt, Hornerstown, Cream Ridge, Imlaystown, Sharon, and Highstown.

11 16 WILLIAM H. GATZMER, Agent.

PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD.

TIME TABLE,

commencing MONDAY, October 5, 1868, Trains will leave the depot corner of BROAD Street and WASHINGTON Avenue as follows:—

Way-Mail Train at 8:00 A. M. (Sundays excepted) for Baltimore, stopping at all Regular Stations, connecting with Delaware Railroad at Wilmington for Crisfield and intermediate stations.

Express Train at 11:45 A.M. (Sundays excepted) for Baltimore and Washington, stopping at Wilmington, Perryville, and Havre-de-Grace. Connects at Wilmington with train for New Castle.

Express Train at 4:00 P. M. (Sundays excepted) for Baltimore and Washington, stopping at Chester, Thurlow, Linwood, Claymont, Wilmington, Newport, Stanton, Newark, Elkton, Northeast, Charlestown, Perryville, Havre-de-Grace, Aberdeen, Perryman's, Edgewood, Magnolia, Chase's and Stemmer's Run.

Night Express at 11:30 P. M. (Daily) for Baltimore and Washington, stopping at Chester, Thurlow, Linwood, Claymont, Wilmington, Newark, Elkton, Northeast, Perryville and Havre-de-Grace.

Passengers for Fortress Monroe and Norfolk will take the 11.45 A. M. Train

WILMINGTON TRAINS.

Stopping at all stations between Philadelphia and Wilmington.

Leave Philadelphia at 11:00 A. M., 2:30, 5:00, and 7:30 P. M. The 5:00 P. M. Train connects with Delaware Railroad for Harrington and intermediate stations.

Leave Wilmington 7:05 and 8:10 A. M., 1:30, 4:15, and 7:00 P. M. The 8:10 A. M. Train will not stop between Chester and Philadelphia.

The 7:00 P. M. train from Wilmington runs daily. All other Accommodation trains Sundays excepted.

FROM BALTIMORE TO PHILADELPHIA.

Leave Baltimore 7:25 A. M., Way-Mail; 9:35 A. M., Express; 2:25 P. M., Express; 7:25 P. M., Express.

SUNDAY TRAIN FROM BALTIMORE.

Leaves Baltimore at 7:25 P. M., stopping at Magnolia, Ferryman's, Aberdeen, Havre-de-Grace, Perryville, Charlestown, North-East, Elkton, Newark, Stanton, Newport, Wilmington, Claymont, Linwood, and Chester.

Through tickets to all points West, South, and Southwest, may be procured at the Ticket Office, No. 838 CHESNUT street, under the Continental Hotel, where, also, state-rooms and berths in sleeping cars can be secured during the day. Persons purchasing tickets at this office can have their baggage checked at their residence by the Union Transfer Company.

4 8 2 R. P. KENNEY, Superintendent.

WEST JERSEY RAILROADS.—FALL AND WINTER ARRANGEMENT.

From foot of MARKET Street (Upper Ferry).

Commencing WEDNESDAY, September 16, 1868.

TRAINS LEAVE AS FOLLOWS.

For Cape May and stations below Millville, 8:15 P. M

For Millville, Vineland, and intermediate stations 8:15 A. M., 3:15 P. M.

For Bridgeton, Salem, and way stations 8:15 A. M and 3:30 P. M.

For Woodbury at 8:15 A. M., 3:15, 3:30, and 6:00 P. M.

Freight train leaves Camden daily at 12 o'clock noon.

Freight received at second covered wharf below Walnut street, daily.

Freight Delivered No. 228 South Delaware avenue.

9 16 WILLIAM J. SEWELL, Superintendent.

RAILROAD LINES.

READING RAILROAD.—GREAT TRUNK LINE from Philadelphia to the interior of Pennsylvania, the Schuylkill, Susquehanna, Cumberland and Wyoming Valleys, the North, Northwest and the Canadas. Summer Passenger Trains leave the Company's Depot, Thirteenth and Callowhill streets, Philadelphia, at the following hours:—

MORNING ACCOMMODATION.—At 7:20 A. M. for Reading and all intermediate stations, and Allentown.

Returning, leaves Reading at 6:20 P. M., arriving in Philadelphia at 9:15 P. M.

MORNING EXPRESS.—At 8:15 A. M., for Reading, Lebanon, Harrisburg, Pottsville, Pine Grove, Tamaqua, Sunbury, Williamsport, Elmira Rochester, Niagara Falls, Buffalo, Wilkesbarre, Pittston, York, Carlisle, Chambersburg, Hagerstown, etc.

The 7:20 train connects at Reading with the East Pennsylvania Railroad trains for Allentown, etc. and the 8:15 A. M. connects with the Lebanon Valley train for Harrisburg, etc.; at Port Clinton with Catawissa Railroad trains for Williamsport, Lock Haven, Elmira, etc.; at Harrisburg with Northern Central, Cumberland Valley, and Schuylkill and Susquehanna trains for Northumberland, Williamsport, York, Chambersburg, Pinegrove, etc.

AFTERNOON EXPRESS.—Leaves Philadelphia at 3:30 P. M. for Reading, Pottsville, Harrisburg, etc., connecting with Reading and Colombia Railroad trains for Columbia, etc.

POTTSTOWN ACCOMMODATION.—Leaves Pottstown at 6:45 A. M., stopping at intermediate stations; arrives in Philadelphia at 9:05 A. M. Returning leaves Philadelphia at 4:40 P. M.; arrives in Pottstown at 6:40 P. M.

READING ACCOMMODATION.—Leaves Reading at 7:30 A. M., stopping at all way stations; arrives in Philadelphia at 10:15 A. M.

Returning, leaves Philadelphia at 5:15 P. M.; arrives in Reading at 8:05 P. M.

Trains for Philadelphia leave Harrisburg at 8:10 A. M., and Pottsville at 8:45 A. M., arriving in Philadelphia at 1 P. M. Afternoon trains leave Harrisburg at 2:05 P. M., and Pottsville at 2:45 P. M.; arriving at Philadelphia at 6:40 P. M.

Harrisburg accommodation leaves Reading at 7:15 A. M., and Harrisburg at 4:10 P. M. Connecting at Reading with Afternoon Accommodation south at 6:35 P. M., arriving in Philadelphia at 9:15 P. M.

Market train, with a Passenger car attached, leaves Philadelphia at 12:45 noon for Pottsville and all Way Stations; leaves Pottsville at 7 A. M. for Philadelphia and all other Way Stations.

All the above trains run daily, Sundays excepted.

Sunday trains leave Pottsville at 8:10 A. M., and Philadelphia at 3:15 P. M.; leave Philadelphia for Reading at 8:00 A. M., returning from Reading at 4:45 P. M.

CHESTER VALLEY RAILROAD.—Passengers for Downingtown and intermediate points take the 7:30 A. M., 12:45 and 4:30 P. M. trains from Philadelphia; returning from Downingtown at 6:20 A. M., 1:00 and 5:45 P. M.

PERKIOMEN RAILROAD.—Passengers for Skippack take 7:30 A. M. and 4:30 P. M. trains from Philadelphia, returning from Skippack at 8:10 A. M. and 1:25 P. M. Stage lines for various points in Perkiomen Valley connect with trains at Collegeville and Skippack.

NEW YORK EXPRESS FOR PITTSBURG AND THE WEST.—Leaves New York at 9 A. M., 5:00, and 8:00 P. M., passing Reading at 1:10 A. M., 1:34, and 10:10 P. M., and connect at Harrisburg with Pennsylvania and Northern Central Railroad Express Trains for Pittsburg, Chicago, Williamsport, Elmira, Baltimore, etc.

Returning, Express Train leaves Harrisburg, on arrival of Pennsylvania Express from Pittsburg, at 2:35 and 5:25 A. M., 9:35 P. M., passing Reading at 4:44 and 7:06 A. M., and 11:40 A. M., arriving at New York, 10:10 and 11:45 A. M., and 5:00 P. M. Sleeping Cars accompanying these trains through between Jersey City and Pittsburg, without change.

Mail train for New York leaves Harrisburg at 8:10 A. M. and 2:05 P. M. Mail train for Harrisburg leaves New York at 12 Noon.

SCHUYLKILL VALLEY RAILROAD.—Trains leave Pottsville at 6:45, 11:30 A. M., and 6:40 P. M., returning from Tamaqua at 8:35 A. M., and 2:15 and 4:35 P. M.

SCHUYLKILL AND SUSQUEHANNA RAILROAD.—Trains leave Auburn at 7:55 A. M. for Pinegrove and Harrisburg, and at 12:15 P. M. for Pinegrove and Tremont; returning from Harrisburg at 3:30 P. M., and from Tremont at 7:40 A. M., and 5:35 P. M.

TICKETS.—Through first class tickets and emigrant tickets to all the principal points in the North and West and Canadas.

Excursion Tickets from Philadelphia to Reading and intermediate stations, good for day only, are sold by Morning Accommodation, Market Train, Reading and Pottstown Accommodation Trains, at reduced rates.

Excursion Tickets to Philadelphia, good for day only, are sold at Reading and intermediate stations by Reading and Pottstown Accommodation Trains at reduced rates.

The following tickets are obtainable only at the Office of S. Bradford, Treasurer, No. 237 S. Fourth street, Philadelphia, or G. A. Nicolls, General Superintendent, Reading.

Commutation Ticket at 25 per cent discount, between any points desired, for families and firms.

Mileage Tickets, good for 2,000 miles, between all points, at $22 50 each, for families and firms.

Season Tickets for three, six nine, or twelve months, for holders only, to all points, at reduced rates.

Clergymen residing on the line of the road will be furnished with tickets, entitling themselves and wives to tickets at half fare.

Excursion Tickets from Philadelphia to principal stations, good for Saturday, Sunday, and Monday, at reduced fare, to be had only at the Ticket Office, at Thirteenth and Callowhill street.

FREIGHT.—Notice of all freight forwarded to all the above points from the Company's New Freight Depot, Broad and Willow streets.

Freight Trains leave Philadelphia daily at 4:35 A. M., 12:45 noon, 3 and 8 P. M., for Reading, Lebanon, Harrisburg, Pottsville, Port Clinton, and all points beyond.

Mails close at the Philadelphia Post Office for all places on the road and its branches at 5 A. M., and for the principal stations only at 7:15 P. M.

BAGGAGE.—Duncan's Express will collect Baggage for all trains leaving Philadelphia Depot. Orders can be left at No. 216 S. Fourth street; or at the Depot, Thirteenth and Callowhill streets.

PHILADELPHIA, GERMANTOWN, AND NORRISTOWN RAILROAD.—TIME TABLE.

FOR GERMANTOWN.

Leave Philadelphia 6, 7, 8, 9:00, 10, 11, 12 A. M., 1, 2, 3¼, 4¾, 5, 5¾, 6:10, 7, 8, 9, 10, 11, 12 P. M.

Leave Germantown 6, 7, 7½, 8, 8:20, 9, 10, 11, 12 A. M., 1, 2, 3, 4, 4¾, 5, 6½, 7, 8, 9, 10, 11 P. M.

The 8:20 Down Train, and 5¾ and 6¾ Up Trains will not stop on the Germantown Branch.

ON SUNDAYS.

Leave Philadelphia 9¼ A. M., 2, 7, 10¾ P. M.

Leave Germantown 8¼ A. M., 1, 6, 9¼ P. M.

CHESTNUT HILL RAILROAD.

Leave Philadelphia 8, 8, 10, 12, A. M., 2, 3¾, 5¼, 7, 9 and 11 P. M.

Leave Chestnut Hill 7:10, 8, 9:40, and 11:20 A. M., 1:40, 3:40, 5:40, 6:40, 8:40 and 10:40 P. M.

ON SUNDAYS.

Leave Philadelphia 9¼ A. M. 2 and 7 P. M.

Leave Chestnut Hill 7:50 A. M., 12:40, 5:40 and 9:25 P. M.

FOR CONSHOHOCKEN AND NORRISTOWN.

Leave Philadelphia 6, 7½, 9, and 11:05 A. M., 1¾, 3, 4½, 5¼, 6¾, 8:05 and 11¼ P. M.

Leave Norristown 5:40, 7, 7:50, 9, and 11 A. M., 1¾, 3, 4½, 5¼, and 8¼ P. M.

ON SUNDAYS.

Leave Philadelphia 9 A. M., 2:30 and 7:15 P. M.

Leave Norristown 7 A. M., 5:30 and 9 P. M.

FOR MANAYUNK.

Leave Philadelphia 6, 7¾, 9, and 11:05 A. M., 1¾, 3, 4¾, 5¾, 6¾, 8:05, and 11¼ P. M.

Leave Manayunk 6:10, 7¾, 8:20, 9¾, and 11¾ A. M., 2, 3½, 5, 6¾, and 9:15 P. M.

ON SUNDAYS.

Leave Philadelphia 9 A. M., 2¼ and 7¾ P. M.

Leave Manayunk 7¾ A. M., 5 and 9¼ P. M.

W. S. WILSON, General Superintendent.

Depot, NINTH and GREEN Streets.

PHILADELPHIA AND ERIE RAILROAD, THROUGH AND DIRECT ROUTE BETWEEN PHILADELPHIA, BALTIMORE, HARRISBURG, WILLIAMSPORT, AND THE GREAT OIL REGION OF PENNSYLVANIA.

Elegant Sleeping Cars on all Night Trains.

On and after MONDAY, September 14, 1868, the trains on the Philadelphia and Erie Railroad will run as follows:—

WESTWARD.

MAIL TRAIN leaves Philadelphia.....10:40 P. M.
" " Williamsport.....8:20 A. M.
" arrives at Erie.....9:25 P. M.
ERIE EXPRESS leaves Philadelphia.....11:30 A. M.
" " Williamsport.....4:35 P. M.
" arrives at Erie.....9:00 A. M.
ELMIRA MAIL leaves Philadelphia.....8:00 A. M.
" " Williamsport.....6:25 P. M.
" arrives at Lockhaven.....7:45 P. M.

EASTWARD.

MAIL TRAIN leaves Erie.....10:50 A. M.
" " Williamsport.....10:15 P. M.
" arrives at Philadelphia.....7:00 A. M.
ERIE EXPRESS leaves Erie.....7:45 P. M.
" " Williamsport.....3:15 A. M.
" arrives at Philadelphia.....5:00 P. M.

Mail and Express connect with Oil Creek and Allegheny River Railroad. BAGGAGE CHECKED THROUGH.

ALFRED L. TYLER, General Superintendent.

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WEST CHESTER AND PHILADELPHIA RAILROAD.—WINTER ARRANGEMENT.—On and after MONDAY, October 5, 1868, Trains will leave as follows:—

Leave Philadelphia from the Depot, THIRTEENTH and CHESNUT Streets, 7:45 A. M., 11 A. M., 2:30 P. M., 4:15 P. M., 4:30 P. M., 6:15 and 11:30 P. M.

Leave West Chester for Philadelphia, from Depot on East Market street at 6:25 A. M., 7:45 A. M., 8:00 A. M., 10:45 A. M., 1:35 P. M., 4:05 P. M., and 6:05 P. M.

Trains leave West Chester at 8:00 A. M. and leaving Philadelphia at 4:30 P. M., will stop at B. C. Junction and Media only. Passengers to or from station between West Chester and B. C. Junction, going East, will take train leaving West Chester at 7:45 A. M., and going West will take the train leaving Philadelphia at 4:30 P. M., and transfer at B. C. Junction.

The Depot in Philadelphia is reached directly by the Chesnut and Walnut Street cars. These of the Market Street line run within one square. The cars of both lines connect with each train upon its arrival.

ON SUNDAYS,

Leave Philadelphia at 8:30 A. M. and 2:00 P. M.

Leave West Chester at 7:35 A. M. and 4:00 P. M.

Trains leaving Philadelphia at 7:45 A. M. and 4:30 P. M., and leaving West Chester at 8:00 A. M. and 4:30 P. M., connect at B. C Junction with Trains on P. & B. C. R. R., for Oxford and intermediate points.

4 16 HENRY WOOD, General Sup't.

ALEXANDER G. CATTELL & CO. PRODUCE COMMISSION MERCHANTS, No. 26 NORTH WHARVES AND No. 27 NORTH WATER STREET, PHILADELPHIA. 2 2

ALEXANDER G. CATTELL, ELIJAH CATTELL.

EAST INDIA TELEGRAPH.

THE EAST INDIA

TELEGRAPH COMPANY.

This Company have an exclusive grant to lay

SUBMARINE CABLES

FROM

Canton to Tien-Tsin,

(THE SEAPORT OF PEKIN),

CONNECTING ALL THE PORTS ON THE

ASIATIC COAST,

Whose foreign commerce amounts to

One Thousand Millions Annually.

This Company is chartered by the Legislature of the State of New York, with a

CAPITAL OF $5,000,000;

SHARES, $100 EACH.

A limited number of shares are offered at $50 each, payable $10 each, $15 November 1, balance in monthly instalments of $2 50 per share.

THE INQUIRIES FOR THIS STOCK ARE NOW VERY ACTIVE, AND THE BOARD OF DIRECTORS INSTRUCT US TO SAY IT MAY BE WITHDRAWN AT ANY TIME, AND THAT NONE WILL BE OFFERED ON THE ABOVE TERMS AFTER NOVEMBER 20 NEXT.

For Circulars, Maps, and full information apply to

DREXEL & CO.,

No. 34 South THIRD Street, Philadelphia;

To duly authorized Banks and Bankers throughout Pennsylvania and at the

OFFICE OF THE COMPANY,

Nos. 23 and 25 NASSAU STREET,

NEW YORK.

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RAILROAD LINES.

PENNSYLVANIA CENTRAL RAILROAD.

FALL TIME, TAKING EFFECT SEPT. 28, 1868.

The trains of the Pennsylvania Central Railroad leave the Depot, at THIRTY-FIRST and MARKET Streets, which is reached directly by the Market Street cars, the last car connecting with each train leaving Front and Market streets fifty minutes before its departure. The Chesnut and Walnut Streets cars run within one square of the Depot.

On Sundays—The Market Street cars leave Front and Market streets thirty-five minutes before the departure of each train.

Sleeping Car Tickets can be had on application at the Ticket office N. W. corner Ninth and Chesnut streets, and at the depot.

Agents of the Union Transfer Company will call for and deliver baggage at the depot. Orders left at No. 901 Chesnut street, or No. 116 Market street, will receive attention.

TRAINS LEA