Lancaster Intelligencer.

WEDNESDAY EVEN'G APRIL 28, 1880.

How Brilliant Gems Are Cut.

Effect of the Rumor that Diamonds Can Be Made in the Laboratory—Where the Precious Stones Come From.

In a recent conversation with a *Tribune* reporter the agent of the Morse diamond cutting company related a number of interesting facts respecting the diamond product in various parts of the world:

"When the report was made public," he said, "that diamonds could be manufactured in the laboratory, people became timid about investing large sums of money in valuable brilliants. During the last holiday season, in consequence, a great many cheap diamonds were sold. But valuable stones, both in the rough and in the form of brilliants, are appreciating in value all the time. It is not thought possible by diamond experts to produce diamonds of any practical value. As yet, it is only claimed that crystals of a very minute size—not larger than a grain of sand—have been produced by chemical processes. Should the chemist succeed in making diamonds of a size sufficiently large to cut, it would cost as much to bring them into the requisite shape as it does the stones found in nature. As long as small crystals only are produced, the discovery amounts to nothing. There are natural diamonds, such as are used in the mechanical arts, by lapidaries and jewelers, that sell as low as a dollar apiece. The principal diamond fields of the world are in South Africa and in Brazil. Owing to the great production in the Kimberley mines in South Africa and the consequent reduction in price the Brazil mines are not worked as much as formerly. A few stones are found in India, some small ones in China and occasionally one has been found in California. It is claimed that one or two have been discovered in Indiana and one or two in Georgia. But those that have been sent from Georgia have turned out to be either beryl or common crystal. The peculiarity of the great Kimberly mines, which are now 360 feet below the surface and cover a large area, is that the diamonds are found imbedded in steatite or soapstone. Those found in the Bahia district in Brazil—which is about 400 miles below Rio Janeiro—are usually imbedded in a conglomerate composed of small pebbles.

"The diamonds that are not fit to cut for gems are used for mechanical purposes. Those most used are what are called carbons from the Bahia district. They are irregular in shape and of a dark brown color, about the size of a hazelnut. When broken there is a gray fracture. They were discovered many years before they were known to have any value. Since the discovery that they were diamonds by an Amsterdam diamond cutter they have risen in price to $8 a carat and more. They are used in burring millstones and in diamond drills. Another variety, known as Brazilian boart, is too poor to cut and is used for drilling. They are of different colors and vary in size from a pin-head to a pea. These little white ones, too small for gems, have good cutting angles and are used by lithographers and bank note engravers in preparing plates. The labor connected with cutting and polishing a diamond adds greatly to its cost. Some are very difficult to shape and polish. A particular seven-carat diamond took seven months' labor—more or less work every day—to get it cut and polished ready for the jeweler and sold at a loss of $1,000. Such diamonds are not crystallized in regular planes and may be compared to a knotty piece of wood. As a rule, however, diamonds have regular cleavage planes. The cutter just makes a line on the face of the stone where he wishes to cut it with the point or angle of another diamond. Then he uses a short instrument of steel and a mallet to effect the cleavage."

"Is every stone cut into the same general form?"

"They all have the same number of facets—fifty-six—but may be round at the girdle (circumference) or oblong, according to the original shape of the stone. They are cut, as a rule, with as little waste as possible."

"To what extent does cold affect the value of brilliants?"

"The white are the most brilliant and consequently the most valuable. Tinted stones are less valuable, but a diamond of a positive pink or green color commands a high price."

TRAVELERS' GUIDE

LANCASTER AND MILLERSVILLE R. R Cars run as follows:

Leave Lancaster (P. R. Depot), at 7, 9, and 11:30 a. m., and 2, 4, 6 and 8:20 p. m., except on Saturday, when the last car leaves at 9:30 p. m

Leave Millersville (lower end) at 5, 8, and a. M., and 1, 3, 5 and 7 p. m.

Cars run daily on above time except on Sunday.

COLUMBIA AND PORT DEPOSIT R. R Trains now run regularly on the Columbia and Port Deposit Railroad on the following time:

STATIONS—NORTHWARD.	Express. A. M.	Accom. P. M.
Port Deposit	6:25	2:45
Peachbottom	7:12	3:43
Fite's Eddy	7:25	4:00
McCall's Ferry	7:37	4:17
Shenk's Ferry	7:54	4:41
Safe Harbor	7:59	4:49
Columbia	8:30	5:25

STATIONS—SOUTHWARD.	Accom. A. M.	Express P. M.
Columbia	10:40	6:20
Safe Harbor	11:33	6:49
Shenk's Ferry	11:48	6:54
	P. M.	
McCall's Ferry	12:18	7:09
Fite's Eddy	12:40	7:20
Peachbottom	1:03	7:32
Port Deposit	2:15	8:05

PENNSYLVANIA RAILROAD—NEW SCHEDULE—On and after SUNDAY, APRIL 4th, 1880, trains on the Pennsylvania Railroad will arrive and leave the Lancaster and Philadelphia depots as follows:

EASTWARD.	Leave Lanc'ter	Arrive Philad'a
Atlantic Express	12:25 A.M.	3:00 A.M.
Philadelphia Express	2:10 "	4:15 "
Fast Line	5:20 "	7:40 "
York Accom. Arrives	7:30 "	....
Harrisburg Express	8:05 "	10:10 "
Dillerville Accom. Arrives	8:45 "	....
Columbia Accommodation	9:10 "	12:01 P
Frederick Accom. Arrives	1:20 "	....
Pacific Express	1:25 P.M.	3:40 "
Sunday Mail	2:00 "	5:00 "
Johnstown Express	3:05 "	5:30 "
Day Express	5:20 "	7:20 "
Harrisburg Accommodat'n	6:25 "	9:30 "

WESTWARD.	Leave Philad'a	Arrive Lanc'ter
Way Passenger	12:30 A.M.	5:00 A.M.
Niagara Express	8:00 "	10:05 "
Hanover Accommodation	....	10:10 "
Mail Train No. 1, via Mt. Joy	8.00 "	11:05 "
Mail Train No. 2, via Col'bia	....	11:07 "
Sunday Mail	8:00 "	10:50 "
Fast Line	11:50 "	2:10 P.M.
Frederick Accommodation	....	2:15 "
Dillerville Local, via Mt. Joy	....	2:50 "
Harrisburg Accommodat'n	2:30 P.M.	5:45 "
Columbia Accommodation	4:00 "	7:22 "
Harrisburg Express	5:30 "	7:30 "
Pittsburg Express	6:25 "	8:50 "
Cincinnati Express	9:10 "	11:30 "
Pacific Express	11:55 "	2.40 A.M

Pacific Express, east, on Sunday, when flagged, will stop at Middletown, Elizabethtown Mt. Joy, Landisville, Bird-in-Hand, Leaman Place, Gap, Christiana, Parkesburg, Coatesville, Oakland and Glen Loch.

Fast Line, west, on Sunday, when flagged, will stop at Downingtown, Coatesville, Parkesburg, Mt. Joy, Elizabethtown and Middletown.

Hanover Accommodation, west, connects at Lancaster with Niagara Express, west, at 10:65, A. M., and will run through to Hanover.

Frederick Accommodation, west, connects at Lancaster, with Fast Line, west, at 2:10 P. M., and will run through to Frederick.

READING AND COLUMBIA RAILROAD.—On and after MONDAY, OCT. 6TH, 1879, passenger trains will run on this road as follows:

TRAINS GOING SOUTH.	A. M.	A. M.	P. M.	P. M.
Reading	7:30	11:55	6:10	....
		P. M.		
Reinholds	8:01	12:24	6:45	....
Ephrata	8:18	12:40	7:03	....
Akron	8:24	12:45	7:08	....
Litiz	8:43	1:02	7:25	....
Manheim	9:02	1:13	7:36	....
Lancaster Junction	9:05	1:40	7:45	....
Landisville	9:16	1:30	7:50	....
Columbia	9:45	1:55	8:20	....
Dillerville	9:27	2:02	8:06	....
Lancaster	9:33	2:05	8:10	5:00
King Street	9:45	....	8:20	5:10
Harnish	9:58	....	8:34	5:30
West Willow	10:05	....	8:42	5:39
Baumgardner	10:09	....	8:47	5:45
Pequea	10:17	....	8:55	5:53
Refton	10:23	....	9:01	6:02
New Providence	10:34	....	9:12	6:15
Hess	10:42	....	9:19	6:28
Quarryville	10:50	....	9:25	6:35

TRAINS GOING NORTH.	A. M.	P. M.	P. M.	A. M.
Quarryville	6:45	....	2:25	7:50
Hess	6:52	....	2:41	7:58
New Providence	6:59	....	2:48	8:13
Refton	7:11	....	2:59	8:27
Pequea	7:18	....	3:05	8:35
Baumgardner	7:26	....	3:13	8:43
West Willow	7:32	....	3:18	8:49
Harnish	7:41	....	3:26	9:00
King Street	7:55	....	3:40	9:20
Lancaster	8:05	1:00	3:50	9:33
Dillerville	8:08	1:03	3:53	....
Columbia	8:00	1:00	3:25	....
Landisville	8:30	1:30	4:04	....
Lancaster Junction	8:30	1:25	4:15	....
Manheim	8:49	1:48	4:29	....
Litiz	9:00	2:00	4:30	....
Akron	9:16	2:18	4:47	....
Ephrata	9:23	2:25	4:53	....
Reinholdsville	9:42	2:46	5:14	....
Reading	10:05	3:20	5:50	....

Trains connect at Reading with trains to and from Philadelphia, Pottsville, Harrisburg, Allentown and New York. At Columbia with trains to and from York, Hanover, Gettysburg, Frederick and Baltimore.

A. M. WILSON, Supt.

LOCAL MAIL ARRANGEMENTS.

HOURS FOR CLOSING THE MAILS.

BY RAILROAD.—NEW YORK THROUGH MAIL 7:00 a m, 12:30 p m, 4:45 p m and 11:30 p m.

WAY MAIL, east, 7 a m.

GORDONVILLE, Downingtown, Leaman Place, Gap 6 p m.

PHILADELPHIA, through mail, 7 and 9 a m, 12:50, 4:45 and 11:30 p m.

PITTSBURGH and west, 1:30 and 11:30 p m.

HARRISBURG MAIL, 10 a m, 1:30, 5:15 and 11:30 p m.

WAY MAIL, west, 10 a m.

BALTIMORE AND WASHINGTON, via Philadelphia, 4:50 p m.

BALTIMORE AND WASHINGTON, via York, 1:30 p m.

BALTIMORE AND WASHINGTON, via Harrisburg, 11:30 p m.

COATESVILLE, 4:45 p m.

COLUMBIA, 10 a m, 1:30 and 5:15 p m.

YORK AND YORK WAY, 1:30 and 11:30 p m.

NORTHERN CENTRAL, 10 a m, 1:30 and 11:30 p m.

READING, via Reading and Columbia R R, 7:30 a m and 12:30 p m.

READING, via Harrisburg, 5:15 and 11:30 p m.

READING WAY, via Junction, Litiz, Manheim, East Hempfield and Ephrata, 3 p m.

QUARRYVILLE, Camargo, Refton, New Providence, West Willow, Lime Valley and Martinsville, 9:30 a m, and 7:30 p m.

NEW HOLLAND, Churchtown, Greenbank, Blue Ball, Goodville, Beartown, by way of Downingtown, at 7 a m and 6 p m.

SAFE HARBOR, via Columbia, 10 a m.

BY STAGE.—Millersville and Slackwater, to Safe Harbor, daily, at 2:30 p m.

To Millersville, 8 and 11 a m, and 4 p m.

Binkley's Bridge, Leacock, Bareville, New Holland, 2:30 p m.

Willow Street, Smithville, Buck, Chestnut Level, Green, Peters' Creek, Pleasant Grove, Rock Springs, Fairmount and Rowlandsville, Md, daily, at 7 a m.

Landis Valley, Oregon, West Earl, Farmersville, Hinkletown, Terre Hill, Martindale, daily, at 2:30 p m.

Fertility, Lampeter and Wheatland Mills, to Strasburg, daily, at 4 p m.

Greenland and Soudersburg, to Paradise daily, at 4 p m.

Neffsville, daily, at 4 p m.

New Danville, Conestoga, Martieville, Colemanville, Mount Nebo, Rawlinsville, Bethesda and Liberty Square, daily, at 2:30 p m.

SUNDAY POSTOFFICE HOURS.

On Sunday the postoffice is open from April 1 to October 1, from 8 to 9 a m, and from 6 to 7 p m; from October 1 to April 1, from 9 to 10 a m, and from 6 to 7 p m.

WHEN OPEN FOR DELIVERY.

ARRIVING BY RAIL.—Eastern mail, 7 a m, 10:45 a m, 3 and 6:30 p m.

Eastern way mail, 10:45 a m.

Western mail, 7 and 10 a m, 2 and 6:30 p m.

Reading, via Reading and Columbia, 2:30 p m.

Western way mail, 8 a m.

Reading way mail, 10:30 a m.

ARRIVING BY STAGE.—From Safe Harbor and Millersville, at 9 a m, daily.

From Millersville, 7 and 9 a m, and 4 p m.

From New Holland, at 9:30 a m, daily.

From Rowlandsville, Md, at 2:30 p m.

Reading way mail, at 10:30 a m, daily.

From Strasburg, at 9:30 a m, daily.

From Paradise to Lancaster, 10 a m, daily

From Neffsville, at 1 p m, daily.

From Rawlinsville, at 11 a m.

DELIVERIES BY CARRIERS.

There are four mail deliveries by letter carriers each day, and on their return trips they take up the mail matter deposited in the letter boxes.

For the first delivery the carriers leave the office at 6:30 a m; second delivery at 10 a m; third delivery at 11 a m; fourth delivery at 3 p m.