

Written for the Bradford Reporter.
Essays on Geology.—No. 11.
The sun and the placid sunshine, glow
The clouds with hearts of fire and crests of snow,
Where blacken'd sides with deep ravines in-
tersected,
Their thunder silenced, and their lightnings
quenched;
Still the slow heat of spent eruptions breathe,
While embryo earthquakes shake them from
beneath.
On the formation of the Volcanic
rocks.—This class of rocks has been
formed during every period of our globe
from the pliocene, to the present day.
They are principally composed of the
incandescent liquid of our earth, which
has been ejected from the interior of it,
and cooled on its surface or in fissures.
Volcanoes have been a subject of much
interest in all ages of the world. The
learned have looked on them with as-
tonishment, and the unlearned with su-
perstitious awe.
Various have been the theories to ac-
count for them. The Egyptians at-
tributed all physical evil to Typhon; a
demon the Greeks who adopted the science
and superstitions of the Egyptians, tell
us that Typhon was a giant more pow-
erful than all the children of the earth;
his head reached the stars, and his arms
embraced the rising and setting sun;—
with his hands he hurled rocks to the
highest heavens; fire gleamed from his
eyes, and liquid fire from his mouth.
Shortly after his birth he so frightened
the gods, that Jupiter as a punishment,
imprisoned him in Mount Etna, where
he still continues to rave, "shaking the
earth with his groans, and ejecting li-
quid fire from his mouth."
The Romans supposed volcanoes to
be caused by the reaction of internal winds,
generating a heat sufficient to inflame
combustible bodies in the bowels of the
earth.
The idolatrous nations of America
and the Pacific islands always deified
the unknown cause of earthquakes and
volcanoes. Among modern nations,
the religion of coal and other combustibles,
has had its advocates, and also the
theory of Sir H. Davy, which ascribes
the production of heat to the oxygenation
of a deoxidized metallic nucleus. The
best of these modern theories lived its
day, and the latter was discarded by its
own author.
The theory adopted by geologists of
the present day, is deduced from the
theory of the earth which I have
briefly explained in preceding essays.
It supposes that the internal fluid
of our globe is compressed by the
cooling and contracting of the surface,
and that the pressure of the fluid, aided
by internal gases, overcomes the out-
ward resistance, and bursting from its
confinement, throws floods of liquid
fire upon the surface.
During the period of historic record,
some countries have been periodically
subject to earthquakes and volcanic
eruptions, while others have been com-
paratively free from these calamities.
The former is scarcely a country where
volcanic products are not found. They
are found in many sections of the United
States. Volcanoes are divided into
two classes, *axial* and *subaqueous*
volcanoes.
Axial volcanoes, are those which
have their craters on apertures above
the sea, and deposit their products
where they are cooled by the air. *Subaqueous*
volcanoes are those whose craters
are beneath the ocean, and conse-
quently their products are cooled under
its waters.
It will readily be seen, that though
the products of these two classes of vol-
canoes are derived from the same
source, yet the different conditions un-
der which they are cooled, will give
them entirely different appearances.—
It is thus that we may account for the
variety of volcanic rocks.
Among the volcanic products may be
reckoned, *Greenstone, Basalt, Trachyte,*
Porphyry, Amygdaloid, and the varie-
ties of the *Trap* rocks, together with
Lava, Pumice, Scoria, Tuff and Ashes
of these greenstone, basalt, trachyte,
porphyry, amygdaloid, and the trap
rocks, are supposed to be the products
of ancient volcanoes, and antecedent to
the present order of things; while lava,
pumice, tuff and ashes, are now being
produced in volcanic districts.
Volcanic rocks have been formed in
every age of our globe since the first
production of its solid crust, and con-
sequently they have a place in every
stratum of rocks. They are found resting
on granite, on the metamorphic
rocks, and interspersed with the fossiliferous
strata, in the form of dikes and
cones, and resting on the ruins of the
habitations of man.
Great and inconceivable must be the
force that can rupture the crust of our
earth which is now supposed to have
a thickness of more than sixty miles,
and throw forth such torrents of liquid
rocks, as those formed in volcanic dis-
tricts.

impression has grown with our growth,
and strengthened with our strength. All
the upside down theories of astron-
omers have not been able to diminish
our confidence in the security of our
foot-hold on its surface, nor the idea of
its being a mass of liquid fire, confined
by a crust not one hundredth part of its
diameter in thickness give us a mo-
ment's uneasiness. Yet when the en-
ergies of nature give motion to this li-
quid mass, when the "fevered earth is
felt jarring, and lifting, and the massive
wall is heard harshly to strain and
grate," when bellowing thunders roll
beneath the feet, and lightnings shoot
with awful glare up to a cloudless sky,
when temples and cities, mountains and
seas, and all that lives, and all that is,
are moving and rocking by a force un-
seen, then confidence takes its flight;
security is at an end. Yet this is but
one of the puny efforts of nature, a
scene that thousands witness every
year. Picture to ourselves the ocean
giving continents their birth, mountains
rising to the clouds in height, and the
rocky crust of our earth wrinkling and
rending, and opening chasms to the
source of liquid fire, and we have a
page in the history of our world, which
every country shows, and every man
may read. We may congratulate our-
selves that the part of the country that
we inhabit is comparatively free from
volcanic influence at the present day.
Nor would we farther our present securi-
ty for the grandeur and sublimity of
Etna or Vesuvius.
None can tell however, how long
this security may be ours. Volcanoes
have within the memory of man burst
forth in districts equally secure. This
was the case with Jurelle, in Mexico
which rose from a plain to the height
of sixteen hundred feet in A. D. 1759.
Still the human period (as it is called)
or the period that man has been an in-
habitant of our globe, may be consid-
ered as comparatively a period of repose.
What its duration may be, man cannot
predict. The elements are in the hand
of Him who formed them, and destruc-
tion goes forth and is stayed at his bid-
ding.
There are many phenomena attend-
ing volcanic rocks which are of high
interest to the geologist. Of these, one
of the most important is the formation
of *trap dikes*. Trap dikes are perpen-
dicular walls of volcanic rock, that are
often found penetrating the crust of our
earth through horizontal strata, from
the tertiary rocks, down through the
older series, and probably extending to
the source of liquid water. These
dikes are supposed to have been caused
by cracks or rents in the crust of the
earth, that became filled with the in-
ternal fluid, which cooled and was
moulded in the form of the space it oc-
cupied. In examining the strata con-
tinuous to these dikes it is found to have
been invariably changed by heat.—
Thus *slates*, and *shales* are found with
a metamorphic appearance. Bituminous
coal is changed to *anthracite*;
limestone with fossils is changed to
granular *marble*.
It is not improbable that many of the
metamorphic rocks, may have been origi-
nally fossiliferous; their present ap-
pearance being owing to the extreme heat
to which they have subsequently been
exposed. Rocks also which are now
fossiliferous may yet become metamor-
phic. All things are subject to change,
and every change is the result of a fixed
law, that leads us into the grossest er-
rors. Were it in our power to trace
the influence of these laws back to
"the beginning," and down the "end of
time," they would doubtless be found
to harmonize in their action.
There may exist what we term phys-
ical evils, yet they were doubtless so
formed as to give the greatest good to
the greatest number.
All accounts due for subscriptions,
advertising job work &c., at this office prior to
the 4th of December last, MUST be settled, at
least—next February court will afford an excel-
lent opportunity for those knowing themselves
indebted to call and save costs!

Democratic County Convention.
Tuesday evening, February 6th, 1844, Con-
vention met at the ringing of the bell, at the
Court House and proceeded to organize by elec-
ting ARUNAH WATKINS President, and
Chas. STOCKWELL and G. W. BRASSLEY Sec-
retaries—the several townships being called the
following gentlemen appeared as delegates, viz:
Asylum—Elmer Horton, John F. Dodge;
Albany—Wm. Blake, James Wilcox;
Athens—C. H. Herrick, Simon Spalding;
Burlington—Addison McKean, J. E. Vosburg;
Columbia—James Sherwood, J. H. Farnam;
Canton—Chas. Stockwell, Jacob Kockwell;
Durell—B. Laporte, J. M. Bishop;
Franklin—Stuart Smiley, Chas. Stevens;
Granville—Harrison Ross, Wm. Banyan;
Herrick—E. B. Mintz, Hollet Tins;
Litchfield—In Chouat, David White;
Litchfield—Hiram Merrill;
Monroe—A. L. Cranmer, Jonas Smith;
Orwell—C. G. Graley, Aaron Chubbuck;
Pike—John Baldwin, Edward Crandall;
Rome—Arnab Watles, John Passmore;
Ridgway—L. E. Pierce, W. H. Johnson;
Canton, J. Rockwell, " 77-30 203 34
Franklin, C. W. Stephens, " 18 76 56 80
Granville, Levi Taylor, " 155 78
Herrick, N. B. Whitmore, " 22 97 84 72
Leroy, H. Hoicomb, " 4 62 138 92
Litchfield, T. B. Merrill, " 84 91 101 65
Monroe, Chester Mason, " 296 47
Orwell, G. W. Wells, " 154 60 228 90
Pike, G. W. Humphrey, " 188 57 231 19
Rome, S. Rockwell, " 94 08 111 38
Ridgway, H. Hinckman, " 84 67 117 96
South Creek, D. R. Moore, " 85 96 8 32
Smithfield, L. Adams, " 78 00 342 28
Springfield, F. Cole, " 117 61 216 30
Tuscarora, W. B. Horton, " 66 37 294 20
St. Stone, H. S. Stephens, " 27 94 188 14
Troy, G. P. Freeman, " 260 41 222 35
Tuscarora, G. Goodwin, " 188 82 117 75
Tuscarora, W. Thompson, " 56 01 49 07
Tuscarora, A. C. Guley, " 369 44 82 30
Windham, Wm. Smith, " 128 91 136 67
Warren, Aaron Corbin, " 194 96 87 11
Wysox, A. Whitney, " 98 56 253 87
Wyalusing, S. W. Biles, " 29 00 265 95
Wells, N. Shepard, jr., " 117 37 5 57
Ulster, Norman Shaw, " 51 25 184 99

Canton, Justin Bothwell, " 96 78 144 11
Franklin, Daniel Webber, " 50 00 19 26
Granville, B. Saxton, jr., " 82 87 68 01
Herrick, E. B. Mintz, " 65 77 18 85
Litchfield, T. B. Merrill, " 65 21 9 20
Pike, John Baldwin, " 202 80 122 14
Ridgway, T. Benight, " 102 80 10 02
South Creek, B. Quick, " 7 37 49 87
Smithfield, W. E. Barton, " 228 79 141 59
Springfield, C. H. Campbell, " 232 32 81 04
Tuscarora, C. Wells, " 64 37 13 41
Ulster, William Gibson, " 147 17 66 00
Wells, R. T. Miller, " 75 55 80 81
Wysox, Albert Lent, " 166 95 123 31
Windham, John Russell, " 47 07 235 62
Wyalusing, John Vaughn, " 165 44 76 94
Athensboro, G. Merrill, 1843 114 30 145 52
" tp., Rob. Sutton, " 163 61 463 42
Albany, D. Burdick, " 39 00 97 88
Asylum, Elmer Horton, " 130 33 142 62
Burlington, C. Taylor, " 85 10 267 75
Canton, J. Rockwell, " 77 30 203 34
Franklin, C. W. Stephens, " 18 76 56 80
Granville, Levi Taylor, " 155 78
Herrick, N. B. Whitmore, " 22 97 84 72
Leroy, H. Hoicomb, " 4 62 138 92
Litchfield, T. B. Merrill, " 84 91 101 65
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Rome, S. Rockwell, " 94 08 111 38
Ridgway, H. Hinckman, " 84 67 117 96
South Creek, D. R. Moore, " 85 96 8 32
Smithfield, L. Adams, " 78 00 342 28
Springfield, F. Cole, " 117 61 216 30
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St. Stone, H. S. Stephens, " 27 94 188 14
Troy, G. P. Freeman, " 260 41 222 35
Tuscarora, G. Goodwin, " 188 82 117 75
Tuscarora, W. Thompson, " 56 01 49 07
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Windham, Wm. Smith, " 128 91 136 67
Warren, Aaron Corbin, " 194 96 87 11
Wysox, A. Whitney, " 98 56 253 87
Wyalusing, S. W. Biles, " 29 00 265 95
Wells, N. Shepard, jr., " 117 37 5 57
Ulster, Norman Shaw, " 51 25 184 99

Watch and Clock Repairing.
W. A. CHAMBERLIN,
RESPECTFULLY in-
forms his friends and the
public that he still contin-
ues to carry on the above
business at his old stand,
one door south of Thomas
Elliott's store, and nearly
opposite the Hay Scales.

Watch and Clock Repairing,
will be done on short notice, and warranted to
be well done. From a long experience in the
business, he believes that he will be able to ren-
der perfect satisfaction to all who may favor
him with their patronage.
N. B. Watches warranted to run well one
year, or the money refunded; and a written
agreement to that effect given to all that desire
one.
CLOCKS.—A large assortment just received
and for sale very low for cash.
Towanda, January 29, 1844.

WATCHES,
CLOCKS, & JEWELRY.
THE subscriber has recently returned from
New York and has just received this day
a splendid assortment of goods in his line.—
Among his assortment may be found Gold and
Silver Lovers, Horizontal, Lepine and common
Watches of the best quality and at reduced prices.
Also, Brass eight day and twenty four
hour W.oo Clocks.
Among his assortment of Jewelry may be
found Gold & Silver Pencils, Breast Pins, Ear
Rings, Finger Rings, Wrist Claps, Sleeve
Pins, Guard & Fob Chains, Gold & common
Keys, Pocket Knives, Specks and Goggles,
Silver Thimbles, Steel Pens, Wallets, Tooth
Brushes, Tobacco and Snuff Boxes, Accordions,
Percussion Caps, Violin Strings, Clarinet
Reeds, Pencil Points, Table & Tea Spoons all
of which will be sold low for Ready Pay.

WATCH REPAIRING.
All kinds of Watches & Clocks repaired on
short notice and done well. Also, Engraving
in style. Call and see.
J. M. GILLSON,
Next door to the Post Office.
Towanda, Nov. 17th, 1843.

A FEW cwt. of good old Berkshire Cheese
constantly on hand by
Nov. 16th, 1843. E. S. CLARK.

FIRE! FIRE! FIRE!
INSURANCE AGENCY.
D. BARTLETT has the agency of
the Delaware Mutual Safety Insurance
Company of Philadelphia, and is prepared to
take risks on very favorable terms. Policies
are issued by said company in the usual man-
ner of other stock companies.
Towanda, Dec. 4, 1843.

CAUTION.
WHEREAS my wife Louisa M. has left
my bed and board without any just
cause or provocation. I hereby forbid any one
harboring or trusting her on my account, for I
shall pay no debts of her contracting after this
date.
FLOYD B. HOWES,
Burlington, Jan. 19, 1844.

ESTRAY.
CAME to my enclosure in Wyalusing about
the middle of November, a YEARLING
heifer. The owner is requested to prove prop-
erty pay charges, and take her away.
JOHN HUFF,
Wyalusing, December 26, 1843.

Administrator's Notice.
A Jacob Arnold, late of Towanda township
deceased, are hereby notified to make immediate
payment; and all persons having demands
against said estate, are requested to present
them to the subscriber, legally authenticated for
settlement without delay.
GEORGE H. BILL,
A. L. CRANMER,
Administrators.
Monroe, December 11th, 1843.

Adjourned Special Court.
AN ADJOURNED Special Court will be
held in Towanda in and for the county
of Bradford on Monday the 25th day of March
next at 10 o'clock in the forenoon for the trial
of the following causes, to wit:
O. P. Ballard vs. George Dewitt, ejectment;
DeChastellaux vs. Abel Fairchild et al. trespass;
Sartile Holden vs. A. B. Smith et al. do.
William B. Clymer vs. M. C. Drinkwater et al.
ejectment;
Sartile Holden vs. Moses Warford et al. tres-
pass;
Rebecca Shrader vs. J. Decker et al. ejectment.
A. CHUBBUCK, Prothonotary.
Prothonotary's Office,
Towanda, December 21st 1843.

ROBERT CONKLIN,
FASHIONABLE TAILOR—on Main st.,
over B. Thomas' Hat Shop, and nearly
opposite Mercers store. [Oct. 10.]

L. E. DE WOLF,
ATTORNEY AT LAW,
TOWANDA, PA.
(Office with the Register & Recorder.)

OLD BED COAL?
THE subscribers are prepared to fill all or-
ders for Coal at THE OLD BED, at
the shortest notice and on the most favorable
terms. Thankful for the liberal patronage they
have received, they are determined to sell fine
coal for blacksmiths, at lower rates than ever
before offered, viz: we will sell for cash,
Fine Coal at \$1.25 per ton—or \$1.38 in pro-
duce.—Coarse and Raked Coal at
former prices.
Beware of imposition! Fine Coal from other
places has palmed off as coming from our mine
—a sufficient proof of the superiority of our coal.
N. B. PRODUCE taken in payment for coal.
GATISS & WAGGITT,
Franklin, Brad. Co. Pa. December 25, 1843.

NEW GOODS,
AT O. D. BARTLETT'S.
October 23, 1843.

MERINOS, Alpaccas, Mous. De Laines,
Figured Orleans, Tegans, Printed Vel-
vet &c, beautiful patterns for the Ladies for
sale by
H. MIX & SON.

BOOTS & SHOES, a large assortment, at
SALSBUYS.
Nov. 8.

RIFLE POWDER, of different qualities
for sale by
D. C. HALL.

ESTRAY.
CAME to the premises of the subscri-
ber in the borough of Towanda on or
about the first day of November, last a RED
HEIFER, about one and a half years old with
no particular marks. The owner is requested
to call prove property pay charges and take her
away.
G. H. DRAKE.
Towanda, Jan. 8th 1843.

LIST OF JURORS, drawn for Feb-
ruary Term and Sessions, 1844.
SECOND WEEK.
Albany—M. A. Ladd, James Lee;
Columbia—L. Besley, G. Bailey, W. Garnett,
S. Keyes;
Canton—George Griffin;
Franklin—James C. Ridgway;
Granville—Ziba Moyses, Benjamin Saxton;
Leroy—Ansel Tillotson;
Litchfield—Jacob Campbell;
Monroe—Charles Holton, David Ridgway;
Orwell—G. S. Gorham, Joel Johnson;
Pike—Charles Keeler, E. Taylor;
Ridgway—King H. Cummins, D. A. Gillet;
Standing Stone—William Griffin;
Springfield—G. Adams, D. Gates, P. Norman;
South Creek—Samuel H. Coleman;
Towanda top—E. D. Montanye;
" tp.—Chas. Manville, B. Goodwin;
Ulster—James Gorseline, Wm. Hovey;
Wysox—F. Brown, J. Ridgway, D. Shores;
Wells—A. W. Knapp, L. Winey.

SPECIAL COURT.
THE Hon. WILLIAM JESSUP, President
Judge of the 11th Judicial District of Penn-
sylvania, has ordered and appointed a Special
Court of Common Pleas to be held for the County
of Bradford, at Towanda, on Monday, the 25th
day of March next, at two o'clock, P. M. for the
trial of all such causes as may then be pending
in said court.
AARON CHUBBUCK, Proth.
Prothonotary's office Towanda, Dec 29, 1843.

NEW GOODS.
BURTON KINGSBURY
HAS JUST RECEIVED from New York
City, a large and well selected assort-
ment of FALL & WINTER GOODS which
are offered for sale at his old stand. This stock
consists in part of
DRY GOODS, CUTLERY,
GROCERIES, LEATHER,
HARDWARE, BOOTS, SHOES,
CROCKERY, HATS & CAPS,
&c. &c. &c.
Which will be sold on the most reasonable
terms for cash or country produce. His old
customers and the public generally are re-
quested to call and examine qualities and prices.
Towanda, Nov. 11th, 1843.

THE LATEST NEWS!
D. C. & O. N. SALSBURY
HAVE just received and are now opening,
at the store lately occupied by V. E.
Piolett, in Wysox, an extensive and well se-
lected assortment of
Fall & Winter Goods:
consisting of almost every variety of Dry Goods,
Groceries, Crockery, Queensware, Hardware,
Boots and Shoes, &c., &c., which they offer to
the public on the most favorable terms for cash
or ready pay. Having purchased for ready pay
at exceedingly low prices, and confidently be-
lieving that their terms and prices offer equal if
not greater inducements to the purchaser than
can be found elsewhere, they respectfully solicit
the patronage of the community.
Lumber and produce taken in payment.
Wysox, Nov. 6, 1843.

H. MIX & SON
ARE NOW RECEIVING from New York
a large and choice selection of GOODS
of every description, to which they call the at-
tention of the public, and which will be sold for
cash, produce of all kinds, and Lumber, at ex-
ceedingly low prices. Call and examine prices
and qualities.
November 7, 1843.

WINTER GOODS!
THE LARGEST STOCK EVER OF-
FERED IN THIS MARKET, is now
opening at Montanye's, which they will sell at
wholesale or retail at such prices as will ensure
a liberal share of public patronage. Their stock
consists of
DRY GOODS, GROCERIES, HARDWARE,
Boots and Shoes, Ladies' Bonnets,
Gentlemen's Hats & Caps,
Buffalo Robes, &c.
and all the necessaries for the comfort
of a cold winter, which appears to be rapidly
approaching.
J. D. & E. D. MONTANYE,
Towanda, November 8, 1843.

LATE ARRIVAL!
THE subscribers have just received at their
store in Monroe, a large and well se-
lected assortment of FALL AND WINTER
GOODS, comprising almost every variety of
Dry Goods, Earthenware,
Groceries, Crockery, &c.
which they now offer to the public at very low
prices for ready pay.
The citizens of Monroe and the surrounding
country are respectfully invited to call and ex-
amine our stock, as we are confident we can give
other establishments in the county.
Lumber and Produce taken in payment.
D. C. & O. N. SALSBURY,
Monroe, Nov. 8, 1843.

HATS & CAPS, a good assortment for
sale by
J. F. MEANS & CO.

COTTON YARN, Wicking & Bating on
hand by
MEANS & CO.

WANTED.
In exchange for Goods—Common. Panel &
good Culling Boards, and 28 inch Shingles.
MEANS & CO.

NOTICE
IS HEREBY GIVEN, that there will be a
meeting of the Directors of the Bradford
County Mutual Insurance Company, at one
o'clock, P. M., on Wednesday, the 17th day of
January inst., at the office of N. N. Betts. A
punctual attendance of all the directors is re-
quested.
N. N. BETTS, Executive
H. S. MERCUR, Committee.
B. KINGSBERRY,
Towanda, January 8, 1844.
The above meeting is adjourned to Tues-
day February 8th, at the same place and time
of day.