THE ADVERTISER,
PUBLISHED EVERY THURSDAY BY
FISHER & HACKER,
In Storp Strickler's Block, Main Street,
BROWNVILLE, N. T.
NARNAS & FISHER,
PROPRIETORS.
TERMS:
One year, if paid in advance, - - - - $2 00
" " if paid at the end of 6 months 2 50
" " " " 12 " 3 00
Clubs of 10 or more will be furnished at $1 50 per year, provided the cash accompanies the order, not prior.

Nebraska Advertiser.

"LIBERTY AND UNION, ONE AND INSEPERABLE, NOW AND FOREVER."

THE ADVERTISER

Rates of Advertising.

One square (ten lines or less) one insertion,	$1 00
Each additional insertion - - - - -	50
One square, one month - - - - -	2 00
Business Cards, six lines or less, one year	6 00
One column one year - - - - -	60 00
One half column one year - - - -	35 00
One fourth column one year - - - -	20 00
One eighth column one year - - - -	16 00
One column six months - - - -	35 00
One half column six months - - - -	21 00
One fourth column six months - - -	13 00
One eighth of a column six months - -	5 00
One column three months - - - -	20 00
One half column three months - - -	13 00
One fourth column three months - - -	10 00
One eighth column three months - -	6 00
Announuing Candidates for office (payment in advance) - - - - -	5 00

Transient advertisements, to insure insertion, must be paid for in advance. Yearly advertisements, quarterly in advance.

VOL. VI. BROWNVILLE, NEBRASKA, THURSDAY, JUNE, 12, 1862. NO. 49.

BUSINESS CARDS.

C. F. STEWART,
ELECTIC PHYSICIAN AND SURGEON,
BROWNVILLE, NEBRASKA.
Office in J. J. Thurman's Drug Store, Whitney's Block, Main street. v6-n43-1y

MILLINERY.
MRS. MARY W. HEWETT,
Has just received a new stock of Straw Goods, Trimmings of
BONNETS, SHAKERS, HATS, CAPS, AND TRIMMINGS,
All kinds and of the latest style. The ladies of Brownville and vicinity are cordially invited to call and see them. First door east of the. Methodist Church, on Water street.
Nov 17, 1862. n41-3m

H. M. ATKINSON,
ATTORNEY AT LAW, AND SOLICITOR IN CHANCERY,
Office corner of Main and First Sts.
Brownville, N. T.
Nov 21, '72—n30-v6 1y

DR. D. GWIN,
Having permanently Located near BROWNVILLE, NEBRASKA, offers his professional services to the practice of Medicine and Surgery, tender his professional services to the afflicted. One mile south of town, on the old Nixon farm.

Augustus Schoneheit
ATTORNEY AT LAW, AND SOLICITORS IN CHANCERY,
Corner First and Main Streets,
Brownville, - - - Nebraska

JAMES S. BEDFORD
ATTORNEY AT LAW, AND Master Commissioner In Chancery.
—BROWNVILLE, N. T.—

T. M. TALBOTT,
DENTAL SURGEON,
Has located himself in Brownville, N. T., tender his professional services to the community. Work warranted.

Clocks Watches & Jewelry.
J. SCHUTZ
Would announce to the citizens of Brownville and vicinity that he has located himself in Brownville, and intends keeping a full assortment of everything in his line of business, which will be for cash. He will also do all kinds of repairing of clocks, watches and jewelry. All work warranted. v3n8 1y

EDWARD W. THOMAS,
ATTORNEY AT LAW, AND Solicitor in Chancery.
Office corner of Main and First Streets.
BROWNVILLE, NEBRASKA.

THOMAS DAVIS,
ECLECTIC PHYSICIAN AND SURGEON,
ROCK BLUFFS, NEBRASKA
Reference, Dr. D. Gwin, Brownville.
April 11, '61. n40-1y

LEWIS WALDTER,
HOUSE, SIGN AND ORNAMENTAL Painter;
PAPER HANGER AND PAPER HANGER.
BROWNVILLE, N. T.

J. WILSON BOLLINGER,
ATTORNEY AND Counsellor at Law
General and Collecting Agent.
BROWNVILLE, GAGE CO., NEBRASKA.
Will practice in the several Courts in Gage and adjoining counties, and will give prompt attention to business entrusted to him. Collections promptly made. Particular attention given to locating Land Warrants on lands carefully selected by him.
December 25, '61. n12-y1y

H. A. TERRY,
Wholesale and Retail Dealer in Garden, Field and Flower Seeds,
ALSO
GRAPE VINES, GOOSEBERRIES,
Currants, Raspberries, Blackberries, and Ornamental Shrubbery Generally.
CRESCENT CITY IOWA.

PIONEER BLANK BOOK Manufactory AND BINDERY,
COUNCIL BLUFFS, IOWA.
WILLIAM F. KITER.
Oct. 1860.

CONFESSIONS AND EXPERIENCE OF A SUFFERER.
Published as a warning, and for the especial benefit of Young Men and those who suffer with Nervous Debility, Loss of Memory, Premature Decay, &c., &c., by one of those who has cured himself by simple means, after being put to great expense and inconvenience through the use of worthless medicines prescribed by learned Doctors.
Single copies may be had of the author, C. A. LAMBERT, Esq., Greenpoint, Long Island, by enclosing one dollar, post-paid addressed envelope. Address C. A. LAMBERT, Esq., Greenpoint, Long Island, N. Y.
March 28, 1862. n46-2m.

PRINCE & CO.,
FLUSHING, N. Y.
Celebrated Nurseries—Established, 1732. All kinds of Trees, Plants, Small Fruits, Grapes, Bulbs, Shrubs, Plants, Stocks, Scions, Seeds etc., etc., of the best varieties, to suit the times. Priced Catalogues sent on application.
[n36 1f]

PREPARE IN TIME AGAINST THE THE FIRES OF FALL,
By Prime, A. No. 1 Insurance, IN THE
PHOENIX INSURANCE CO. OF HARTFORD,
The Fruits of the Phoenix
Are manifest in the following statement of Facts and Figures, showing the amount equalized to public benefit, in the shape of losses paid in the west and South, during the past four years; a substantial record of a
Well Tried Corporation.

$1,167 00	NEBRASKA	$1,167 00
46,377 55	OHIO	46,377 45
27,622 94	INDIANA	27,622 94
69,174 56	ILLINOIS	69,174 56
32,670 08	MICHIGAN	32,670 08
34,220 13	WISCONSIN	34,220 13
19,323 34	IOWA	19,323 34
8,653 10	MINNESOTA	8,653 10
9,765 00	KANSAS	9,765 00
34,054 36	KENTUCKY	34,054 36
43,054 90	TENNESSEE	43,054 90
20,832 55	MISSISSIPPI	10,832 55
27,698 83	MISSOURI	27,698 83
22,839 43	ARKANSAS	22,839 43
3,961 68	TEXAS	3,961 98
555 56	ALABAMA	555 55

Insurances solicited, and policies issued and renewed in this leading Corporation, at fair rates by
E. W. THOMAS
Resident Agent.
Brownville, Sept. 5, 1860.

JOHN L CARSON
(Successor to Lushbaugh & Carson,
BANKER,
LAND AND TAX PAYING AGENT
Dealer in Coin, Uncurrent Money, Land Warrants, Exchange, and Gold Dust
MAIN STREET,
BROWNVILLE, NEBRASKA.
I will give especial attention to buying and selling exchange on the principal cities of the United States and Europe, Gold Silver, uncurrent Bank Bills, and Gold Dust, Collections made on all accessable points, and proceeds remitted on exchange at current rates.
Deposits received on current account, and interest allowed on special Deposits.
OFFICE,
MAIN STREET, BETWEEN THE Telegraph and the U. S. Land Offices.
REFERENCES:

Lind & Brother	Philadelphia, Pa.
J. W. Carson & Co.,	" "
Hiser, Dick & Co.	Baltimore, Md.
Young & Carson,	" "
Jeo. Thompson Mason, Col'r of Port,	" "
Wm. T. Smithson, Esq., Banker,	Washington, D. C.
J. T. Stevens, Esq., Att'y at Law,	" "
Jno. S. Gallaher, Late 3d Aud. U. S. T.	" "
Tarlor & Kriegh, Bankers,	Chicago, Ill.
Montgomery & Co.	St. Louis, Mo.
Hon. Thomas G. Pratt,	Annapolis, Md.
Hon. Jas. O. Carson,	Mercersburg Pa
P. B. Small, Esq., Pres't S. Bank,	Hagerstown, Md.
Col. Geo. Schley, A'y at Law,	" "
Col. Sam. Hambleton Att'y at Law,	Easton, Md.
Judge Thos. Perry,	Cumberland, Md
Prof. H. Tutwiler,	Havana, Alabma.

Nov 8, 1860-tf.

Money Advanced on PIKES' PEAK GOLD!
I will receive Pike's Peak Gold, and advance money upon the same, and pay over balance of proceeds as soon as Mint returns are had. In all cases, I will exhibit the printed returns of the United States Mint or Assay office.
JNO. L. CARSON,
BULLION AND EXCHANGE BROKER
BROWNVILLE, NEBRASKA.
no20-t4

REAL ESTATE AND Collection Office OF T. W. Bedford,
BROWNVILLE, NEBRASKA.
Main, Between Levee and First Streets.
Particular attention given to the Purchase and Sale of Real Estate, Making Collections and Payment of Taxes for Non-Residents.
LAND WARRANTS FOR SALE, for cash and on time.
LAND WARRANTS LOCATED for Eastern Capitolists, on lands selected from personal examination, and a complete Township Map, showing Streams, Timber, &c., forwarded with the Certificate of location.
Brownville, N. T. Jan. 3, 1861. y1

STAR CRACKER MANUFACTORY,
ST. JOSEPH, MO.
HENRY M'DIVITT,
Invites the attention of Merchants, Grocers, Hotel Keepers, Ranchmen, and Travelers to the Mines, to his extensive
Cracker Manufactory
He is prepared to furnish
SODA, BOSTON, BUTTER, SUGARD AND PIC NIC CRACKERS AND PILOT BREAD,
At Wholesale or Retail, and at prices as low as can be had anywhere. HENRY M'DIVITT.
April 17, 1862—n41-3m

EAGLE WORKS
MANUFACTURING COMPANY,

DO YOU WANT
STEAM ENGINES OR BOILERS
PATENT SUGAR CANE MILLS,
PATENT STEAM COIL EVAPORATORS,
PATENT FIRE EVAPORATORS,
PATENT STAMP MILLS,
—FOR—
PIKE'S PEAK OR LAKE SUPERIOR,
SEND FOR CIRCULARS,
With Cuts, and Descriptions, Prices, etc., etc.
SAW MILLS, FLOURING MILL, AND MACHIERY OF ALL DESCRIPTION.
SEND FOR CIRCULARS.
P. W. GATES, President.
Chicago.
N. B.—Agents wanted everywhere.
R. W. FURNAS, AGENT,
Brownville, Nebraska,
Of whom Circulars and detailed information can be had.
March 20, 1862. [n37-1y]

THE OLD HARTFORD FIRE INSURANCE CO. INCORPORATED 1810 HARTFORD CONN.

SEMI-ANNUAL STATEMENT, No. 102.
CAPITOL and SURPLUS
$932,302.98.
May 1st. 1861.

Cash and cash items - - - - -	$79,588 78
Loans well secured - - - - - -	56,253 20
Real Estate - - - - - - -	15,000 00
2626 shares Hartford Bank Stocks - -	274,552 00
2425 " New York " " - -	192,350 00
1010 " Boston " " - -	100 750 00
507 " other " " - -	58,085 00
United State and State " " - -	73 367 00
Hartfd & N. Haven R. B. bonds " - -	39,700 00
Hartford City Bonds - - - -	36 750 00
Conn. River Co. & B. B. Co. Stock - -	4,600 00
Total Assets - - - - -	$932,302 98
Total liabilities - - - - -	73,244 27

For details of investments, see small Cards and Circulars.
Insurances may be effected in this old and substantial Company on very favorable terms.
Apply to
JOHN L. CARSON, Agt.
BROWNVILLE, N. T.
Dwellings and Farm Property insured for a term of years at very low rates [17n04]

BROWNVILLE

Steam Ferry,
THORN, COLEMAN, CO.,
Announce to the traveling public that their splendid and commodious Steam Ferry running across from
Brownville, Nebraska.
is one of the best in every respect on the Upper Missouri river. The Boat makes regular trips every hour so that no time will be lost in waiting.
The banks on both sides of the river are low and well graded which renders unloading unnecessary as is the case at most other ferries.
No fears need be entertained as to difficulties at or near this crossing, as everybody in this region, on both sides of the river, is for the Union the strongest kind.
Our charges too—an item these hard times—are lower than at any other crossing.
Travelers from Kansas to Iowa and to the east will find this the nearest and best route in every respect.
THORN, COLEMAN & CO.
Brownville, Nebraska, Sept. 21st, 1861.

JACOB MAHRON,
Merchant Tailor,
BROWNVILLE,
Calls the attention of Gentlemen desiring new, neat, servicable and fashionable
WEARING APPAREL,
TO HIS
New Stock of Goods
JUST RECEIVED,
BROAD CLOTHS, CASSIMERS, VESTINGS, &c., &c.,
OF THE VERY LATETT STYLES,
Which he will sell or make up, to order, at unprecedented low prices.
Those wishing any thing in his line will do well to call and examine his stock before investing, as he pledges himself to hold out peculiarly favorable inducements.
February 13th, 1862.

NEW DRUG STORE
IN
BROWNVILLE,
Whitney's Block, Main Street.
LOOK FOR THE SIGN OF THE
ELK HORN and MORTAR
J. J. THURMAN,
ANNOUNCES to the citizens of Brownville and vicinity that he has removed his Drug Store from Sidney, Iowa, to the City of Brownville, and having added thereto an extensive stock of
Fresh Drugs,
Chemicals,
Dye Stuffs,
Paints and Oils,
Pure Wines and Liquors,
For Medical Purposes,
Hair and Tooth brushes,
Perfumery,
Fine Toilet Soap,
&c., &c., &., &c.
Invites the public patronage.
Physician's Prescriptions attended to at all hours both by day and night.
Brownville, April 11th, 1861. n40-y1y

CHEAP FLOWERS & FRUITS
I will send, by mail, postpaid, 100 SMALL BULBS, mostly mixed TULIPS, for one dollar, and Large Bulbs of same, for $2. Other Bulbs, named, low enough.
HERBACEOUS PERENNIALS, of 50 sorts, fine mixed ROSES and other HARDY SARUBBERY, by express, or railroad, 4 to 8 dollars per 100. NAMED and CHOICE SORTS, about double price; and more in small selected lots—in all, 500 varieties.
"SMALL FRUITS" of all sorts, including DELAWARE and CONCORD GRAPES, equally reasonable.
FRUIT and ORNAMENTAL TREES, 25 per cent. lower than usual. All safely packed, to keep a month, at purchasers cost. Address,
JOHN A. KINNICOTT,
The Grove P. O., Cook Co., Ills.

POETRY.

From Moore's Rural New Yorker.

The Volunteer's Vision.

BY GENOA GREY.

Last night, as I lay in the rain
And looked up to heaven through the night,
A vision came o'er me and lighted my brain
With a glory that never will flood it again
This side of the river of light.

And I heard a sweet sound, as it came
Like the flutter of feathery wings,
And the voice of a seraph kept calling my name,
And her breath in my tresses went playing the same
As the air in an instrument's strings.

I told my wild heart to be still—
That the vision was naught but a dream;
For I knew not that over the amethyst hill
The feet of my darling had wandered at will
On the banks of Eternity's stream.

I said to the sanctified bird,
"Oh, why have you come from the West?"
And she told how the leaves of the forest were stir'd
By the feet of the angel who bro't her the word
Of the land where the weary may rest.

She said she was tired and faint,
And her heart was all covered with snow;
The angels they heard her unuttered complaint,
They called her, and brought her the robes of a saint,
And she said she was ready to go.

I told her the blossoms were sweet
In the meadows, the same as of yore;
But she showed me the dew on he sparkling feet,
Pressed out of the lilies that border the street,
By the sand of the Paradise shore.

I asked her how long I must wait
Before I should meet her afar;
And prayed her unfold me the book of my fate—
But she vanished, and passed thro' the crystaline gate
She had left, in her coming, ajar.

Dear Hugh, there's a battle to-day,
And perchance I may happen to fall;
If I'm not at the call of the roll, you may say
A good-by to the boys in my name, for I may
Say "aye" to an angel's sweet call.

AGRICULTURAL.

Advantages Derived from Shading the Soil with Green Crops.

We have frequently contended—and the additional experience which every year brings with it adds further confirmation to the fact—that the rapid exhaustion of even our very best soils is not due so much to constant croppings as to the hoed crops which play so prominent a part in our system of agriculture. It is true that corn and tobacco draw largely upon our soils, and especially upon the phosphates and the potash which they contain. It is true, also, "that shallow and careless cultivation has done much to assist in exhausting lands which were regarded at one time as of almost inexhaustible fertility," and statistics likewise show that whilst the area of cultivation has been extended year after year, the average product per acre has diminished.

One of the primary reasons why these crops have proved so deleterious to the soil, is the fact that the system of cultivation required to bring them to perfection, keeps the intervals between the growing plants utterly bare during the hottest months of the year. The action of the sun upon these exposed surfaces, together with the constant stirring of the soil for the purpose of keeping it loose and light and friable, whilst it promotes the solubility of its plant-food, yet at the same time exposes the organic and inorganic substances which constitute in their several proportions the elements of fertility to great loss, both by evaporation and by washing rains. As an illustration of this process of exhaustion by the simple exposure of bare soil to the action of the sun and the rain in summer time, we may cite the following facts. A piece of land kept constantly plowed, without any crop whatever being grown upon it, if not suffered to grow up in weeds, will gradually lapse from a state of fertility into one of comparative barrenness. It has been losing year after year, by evaporation and by leaching rains, the greater portion of its plant-food, its vegetable and mineral wealth, if we may be permitted to so term it. As a signal proof of this we have in our mind's eye a peach orchard which twenty years ago was planted upon as fine a piece of soil as is to be found anywhere within ten miles of Baltimore. It was a light, loose chocolate soil, and the quality when the orchard was planted, was that of the best tobacco land.—That orchard was plowed regularly every season to promote the growth of the peach trees and to facilitate the ripening of the fruit. It is the usual custom with the best peach-growers. In twelve years, or by the time the peach trees began to show signs of decay, those fifty acres bore every evidence of a soil that had been utterly exhausted. Yet with the exception of the peach trees themselves, not a single crop of any kind had been taken from the land. Now, this rapid exhaustion could not be charged to the demands made upon the soil by the peach trees alone, but to the fact that the soil was kept perfectly bare throughout the summer.

Again—take the converse of the proposition. So long as lands are kept shaded they continue to increase in fertility. Does any one doubt this? Let him turn out an old field, and after a while a new growth of wood and brush will spring up, except when the land is worn into gullies, and with the growth of this wood, the droppings of the leaves and the shade of the foliage, a portion of the lost fertility of the land will be restored. Yet the trees have been drawing nutriment from the soil all through these years. Take another instance—leave a bed of cornstalks, or a pile of brush, upon a field that the previous season had been planted to corn, and is consequently bare of herbage or weeds; or, build a fodder stack in the field and fence it off from the cattle.—When the land comes into crop again the next season, the place from which that pile of stalks, or brush, or fodder stack, will show a ranker growth than any other part of the field. What was the reason of this difference?—nothing more than that the ground was kept shaded, evaporation was prevented, the soluble salts were retained, and the land got the benefit of them.

Instances of this kind are constantly coming before the eyes of the observant farmer, and from them he may draw the following conclusions, for they are susceptible of none other:

First—That the exposure of the soil to the sun, heat and rain of our semi-tropical summers rapidly exhauste it of its fertilizing elements.

Second—That covering or shading the soil preserves these elements.

Third—That green crops, such as clover, should take the place of hoed crops more frequently in our system of husbandry, and that the less frequently the surface of the soil is exposed to the wasting influence of sun, wind and rain, the longer it will retain its original condition of fertility.—*Baltimore Rural Register.*

How an Army Marches.

Our readers do not of course, suppose an army moves, when about serious work a sa regiment marches through our streets, or goes through a dress parade at the lower end of Boston Common. As follows is something like the style of doing the thing:

The troops are distributed according to the nature of the country. In a very open country a large proportion of the cavalry would be at the head of the column; but generally it is distributed throughout the line. The artillery should be in the rear of the first foot regiment. An advence or rear guard of mounted troops—one or two companies—should be detailed every day, and the regiment that has the right of the line one day should be next day in the rear. In a woody or mountainous country, detachments or flankers and skirmishers are thrown out to the right and left of the column, at a distance of one or two hundred paces to keep a sharp look-out, and prevent any such disastrous and gratuitous experiences as those recently and painfully familiar to us in connection with the ambuscade on the road to Vienna. The column having been formed at half or quarter distance. and the baggage train assembled in the rear, protected by a guard selected from each regiment for its own baggage, the column is put in motion and the march commences with the same regularity as would be observed by a regiment moving in or out of a garrison town. the light infantry with their arms sloped, and those of the riflemen slung over the shoulder, the officers with swords drawn, exact wheeling distance preserved and perfect silence observed. After having proceeded a short distance in this manner, the word of command, "route step," is given by the general at the head of the leading battalion and passed quickly on to the rear. The captains instead of continuing at the head of their companies, draw back to the rear of them, that they may see any men of their respective companies who may attempt to quit the ranks without leave. The soldiers then march and carry their arms in any manner convenient to them, conversation and smoking being ordinarily allowed.

Wearing out Varieties.

Observing that such a fruit as the Golden Pippin, thought by some theorists to be worn out, can be renovated by giving it a genial climate, one is almost tempted to advance the opinion that for the last 150 years there has been a change and a lowering of temperature in our climate, too slight to be correctly ascertained by meterologists, because the mean temperature of the year may not differ to any great extent, yet enough to affect vegetation to some extent, although our summers may be cooler.

According to Langley, who wrote in 1727, the Nutmeg Peaches, sorts which are still well known, ripened the last week in June (allowance being made for old style, in which he gives his dates) against a south wall, and the Noblesse Peach. which he correctly describes, August the 2d. In an orchard house in a sheltered situation, I have never known the Nutmeg Peaches to ripen till the third week in July, nor the Noblesse till September 2d. The season of many other kinds of fruits was then (120 years since) much in advance of what it now is, so that to the gradual lowering of our temperature we probably owe the tendencies to disease in many of our old kinds of fruits, for if the trees are suffered to grow uncheked, and to root deeply into the soil, canker in Apple and Pear Trees makes its appearance, and the trees can only be kept in health when planted away from the influence of walls, by keeping their roots to the surface, so as to be influenced by sun-heat, now apparently less powerful in summer than it used to be in our climate a century or since.—*London Gardener's Chronicle.*

In hiving a new swarm of bees it is of great importance to give them a hive already furnished with combs.

Gigantic Canals in India.

We take the following from the *Mechanics' Magazine:*

From Calcutta we learn that, in anticipation of the future extensive cultivation of cotton in British India, it is intended to form a number of canals for the irrigation of the districts adapted to the growth of the plant. The general scheme proposed by Colonel Dickens, under the sanction of the government, consists in the construction of two main canals leading from a dam, to be fed by the river Soane. These will extend in opposite directions to a distance of ten or twelve miles, when they will branch off into two fanlike systems of irrigation channels, extending on one side to the Kurumnassa and Ganges. There will also be navigation channels for facilitating the transmission of the crops to Benares, to the mouth of the Kurumnassa, to Arrah and to Patna. The aggregate dimensions will be 681 miles of irrigation, and 145 of navigation channels, or in all 826 miles. Through these water will flow at a speed of two miles per hour, while the supply will yield 3,124 cubic feet per second.—The dam is proposed to be formed on the plan of the Madras Delta Works. The chief difference consisting in the depth of the undersunk foundations, which Colonel Dickens in his plan suggests, namely, two rows of blocks, 20 feet each in depth, whereas the wells at Madras range from 7 feet to 9 feet only. The principal impediment to the carrying out of the works is their enormous probable cost. The colonel, however, has entered into lengthy calculations to prove that the outlay would be amply compensated for by the enhanced productiveness of the land to be irrigated, and it is likely that a portion, at least, of the scheme will soon be commenced. As to its complete fulfilment we apprehend that that will depend much upon the future phases which the civil war in America may exhibit. The present condition of our own manufacturing districts should plead eloquently for the increased growth of cotton in India, and we should imagine that Lord Elgin could not more worthily inaugurate his succession to the Governor-Generalship than by paying immediate and practical attention to the momentous subject.

Cannon.

Cannon are cast solid. They are afterwards bored out, and several successive borings are necessary. Mortars are made in the same way. In casting cannon, a mould of sand is enclosed in a frame work of iron. The molten metal, after being put into the mould is allowed two or three days to cool, and then, with the sand adhering, placed in an oven and baked for an equal length of time. After being taken from the oven, the mass is buried in the earth for a certain length of time in a perpendicular position to prevent any flaw or fracture.

A new American invention is to cast large cannon hollow, and cool the inside by passing a stream of water through it. The "Union," the large gun at Fortress Monroe, was made in that way.

In the old smooth-bore cannon the iron balls could not be made to fly exactly in a straight line. The same gun aimed in the same direction, would vary the ball from side to side of a mark several feet, in shooting a mile or less. By rifle boring the barrel, a good gunner can now hit a man a mile or two, or so far as he can be sighted. As iron cannon balls cannot be pressed into the grooves, a ring or cup of lead is put on the back part of the ball and this on firing is expanded or forced intr the grooves, which not only gives the ball its rotary motion, but the lead also stops up the space around the ball, and prevents the escape of gas, thus giving greater power to the powder. The space necessarily left between a solid ball and the barrel, is called the "*windage.*"

All our old cast-iron cannot that are in good condition may be rifled, and thus be made doubly effective for warfare. They are sufficiently strong, we believe, to withstand common charges; but if it is desired to submit them to extraordinary charges they can be strengthened to any degree by shrinking wrought-iron bands upon them.

The Cabbage Worm.

This worm is caused by a species of fly that lays an egg just under the surface of the soil, and always against the plant. When you set out your cabbages, cut out slips of paper, and after wetting them, for convenience sake, wind two or three thicknesses around the stem of the plant. The width of your paper must be according to the length and size of the plant—say from one to two inches wide, so as to cover the entire stem from the leaves down to the roots, taking care, however, not to cover the roots. The insect, not finding access to the plant, will not deposit the egg near the paper, but go elsewhere.—*Rural New Yorker.*

GOPHERS.—Gopher hunts seem to be the order of the day in some parts of Wisconsin. In Dodge county one recently took place, in which, in one day, 749 of the pests were killed. Other hunts of this character are on the tapis in that quarter. *Death to the Gophers.*

DIARRHEA IN CALVES.—The Stock Journal says:—Give the animal, twice daily, half a pint of boiled milk, and stir into the same a table spoonful of finely pulverized charcoal.

The Fruit Tree Borer—Simple Remedy.

The editor of the *Gardener's Monthly*, "recently called on a friend famous for the success of his apple crop," and who affirmed that his success resulted from keeping the borer away from his trees. To do that he merely kept the soil scraped away from the trunk down to the bare roots. Passing over several queries as to the advantage of removing the soil, the Editor concludes the conversation thus:

"What then is your object?" was the next enquiry. "It is to keep the borer out. Did you ever seed the borer enter in the stem of the tree, at any height above the ground? No. And why? It requires soft moist bark for the purpose; and whenever you remove the soil, and render the bark hard and firm to the collar, the borer instinctively goes to other more favorable places for the secure raising of its young." "But will they not go into the main, leading roots?" "I have found them to avoid these roots as if it were unfit to rear their young; in fact, I have never know them attack mine."

Nor had they; that was evident. A clean, healthy orchard—never cropped, annually top-dressed, grass kept away several feet from the stem, so that no insect could find a "cool and moist" harbor for its larvæ, and every success following. Certainly the borers did not attack these trees; and the novel reasoning struck us as so philosophical, that we have thought it worth recording in our pages, for further observation."

Practical Value of Scientific Knowledge.

Some years ago, it was the practice of tin-plate works to throw away a large quantity of black dust formed in the manufacture. In conjunction with the late Mr. Henry, Dr. Percy visited tin-plate works in South Wales, and procured specimens of this dust, which it had been the former custom to throw into the river hard by, and in which Mr. Henry found 60 per cent of tin! Many copper ores contain considerable quantities of gold and silver, which it has not been considered worth while to separate. At some large chemical works, in which sulphate of copper was prepared by dissolving copper in sulphuric acid, an insoluble residue was produced in the process, which had been put aside from time to time, and had fortunately not been thrown away. A small sum was offered by certain persons for this residue; and suspicion having been excited by the quarter from which the offer proceeded, it was declined, and the residue was examined, with the result of finding it to contain £700 worth of gold! It is believed by Dr. Percy that the slags which have been cast out from the furnaces used for the remelting of old copper and the refining of new in the government establishments for the preparation of copper sheathing for ships' bottoms, containing a large amount of the precious metals. There are probably, he states, accumulations of copper slags in some of H. M.'s dockyards, or in their vicinity, which present a more promising field for mining enterprise than many a *sett* in Cornwall or Devon.—*Westminister Review.*

When Lord Cornwallis surrendered to the American army at Yorktown, a young ensign was appointed to receive the colors of the British Regiments. The ensign upon whom this honor was conferred was Robert Wilson, 18 years of age, and the youngest commissioned officer in the army. His grandson, Robert Wilson, is now Adjutant of the 16th New York Regiment, in Heintzleman's Division of Gen. McClellan's army. It is not a little remarkable that the grandsone should be engaged in a campaign on the very spot where his ancestors met the enemies of his country, and, like him, a witness of their discomfiture. Ensign Wilson was a member of the Cincinnati. The certificate of membership on parchment, with Gen. Washington's signature, is now in possession of his grandson.

WOOL EXHIBITION.—There is to be a great wool show under the supervision of the Ohio State Agricultural Society at its annual exhibition to be held at Cleveland, Sept. 15th to 19th, 1862. Competition is open to the world. Wool will be divided into four classes. 1st. Fulling Wools. 2d. Delaine Wools. 3d. Cassimere Wools. 4th. Combing Wools. Twenty-five fleeces must be exhibited to entitle exhibitors to a premium. Mr. S. N. Goodale, of Cleveland will have charge of this department.

An Indiana chaplain selected for singing the hymn commencing—

Show pity, Lord! oh, Lord, forgive;
Let repentant rebels live.

He had scarcely uttered the last word of the last line, when a private soldier in his congregation—an old man a zealous christian—earnestly cried out: "No, Lord, unless they lay down their arms!"

An old Rocky Mountain trapper was asked one day if he had ever seen any petrifications in the mountains, when he replied: "Bless you! I've seen a whole forest, sage bushes and all, petrified—one of the trees had all the leaves on, and a bird sitting on a limb. He must have been petrified in the spring of the year, for his mouth was open just as if he was singing."

The head learns new things, but the heart forever more practices old experiences.