## The Centre Democrat.

### BELLEFONTE, PA.

AGRICULTURAL.

NEWS, FACTS AND SUGGESTIONS.

THE TEST OF THE NATIONAL WELFARE IS THE INTELLI GENUE AND PROSPERITY OF THE FARMER.

Every farmer in his annual experience Every farmer in his annual experience discovers something of value. Write it and send it to the "Agricultural Editor of the DEMOURAT, Bellefonte, Penn'a," that other farmers may have the benefit of it. Let communications be timely, and be sure that they are brief and well pointed.

No MORE important reading for farmers can be found anywhere than that embodied in the continuance of our selected paragraphs on "Wheat Culture." Mr. Reed's statements as to the value of ground limestone are well worthy the earnest attention of wheat growers in this limestone region.

PERHAPS potatoes suffer more from weeds than any other crop. One weed will take up and evaporate a good deal of moisture from' the soil, and rob the crop of what it greatly needs. This loss of moisture is not often thought of in considering the effects of weeds, but it is very important. It is too late now to eradicate the weeds by cultivation, but all the large ones should be hand-pulled. It will pay.

THE officers of the State Agricultural Society seem to be making every possible effort to have the coming exhibition at Philadelphia the finest that the Society has ever made, and we hope they will succeed. Perhaps one of the most attractive and instructive departments connected with the fair will be that of poultry. The officers are now furnishing blank officers are now furnishing blank forms for entry to all who apply to that at one inch below the surface the Secretary, and will furnish comfortable and attractive coops, and an experienced person to feed, water three inches, three-quarters grew. and take general care of them while the fair lasts. We should be glad to see our county well represented in this and all other departments, and as arrangements have been made with railroad and express companies to agreed in recommending the Fultz. furnish transportation at half rates, it should be done.

THE transplanting of green plants for the season is probably at an end, nd we shall now have to wait until t year for an opportunity to profit ly learned lessons; but while in mind we wish to place

mants after

isfaction.

well and carefully made, and so thoroughly serve the purpose for which they are intended that farmers find profit in their use, and it gives us pleasure to be able, from actual experience, to commend to our readers one that comes up to the standard.

#### Wheat and Its Culture.

THE EXPERIENCE OF PRACTICAL AND SUCCESSFUL GROWERS, GATHERED FROM ALL SOURCES.

If we sow too early we run great risk of having the crop injured by the Hessian fly.

Wheat after oats, is a faulty prac tice. The soil is filled with weedsof which the sprouting oats are the worst-and the rag-weed, and many others work mischief.

Harrowing disturbs the Hessian Fly. Doubtless this is because the wheat is pushed forward by the stirring of the soil, and many maggots are certainly destroyed.

Manuring for wheat is less common than it should be. A little rich, well-rotted manure spread on the surface before or after the seed is sown often has a wonderful effect.

It will be found decidedly benefic ial to use a sloping-tooth harrow soon after sowing, and before the spire shows above ground, and again as soon as it has become well rooted.

The great aim of the wheat-grower must be to get a vigorous, healthy plant in the autumn. He must endeavor to secure this by having rich, moist, and mellow land rather than by early sowing.

Winter wheat needs better culture than we have been giving it. We must make the land richer, cleaner, and mellower. The better the va-riety the better land and better culture will be required.

seed of wheat grew, if the every ground is moist, while at two inches seven-eights of the seed grew, and at

At the July meeting of the Eastern Experimental Farm Club, a member requested the voice of the club as to the kind of plant to produce The majority

When all else is done, make the necessary water furrows at There may come a heavy rain the next day and do damage. Disperse the water into the several channels, rather than permit it to collect in one or two.

It is a good practice on fertile soil to sow grass-seed two weeks after the wheat is put in. Thrifty growwe have this summer ing timothy keeps the wheat back, as setting out young proved last season on the writer's Other farmers corroborate field.

> nd for wheat. anure in June on to the abble, and plow it fmmediat again two or three times, Liore sow ing the wheat. I have practiced this method several years, with good sat-

efficiency of this plan, we set some four hundred celery plants in the Wheat requires a fine mellow soil morning of one of the hottest and for the seed, and a light soil to be grains. If any vacant places are left, as would be were the soil cloddryest days in the middle of July, and although this plant is popularly supposed to be very shy of the sun, not one of them wilted, nor showed will dry and perish. Therefore, afhar-

that agricultural implements are so ing the seed into one furrow; sowing somewhat less seed. Then the spaces may be cultivated by adapting an ordinary spreading cultivator, or using a wheat hoe.

> Last year my wheat was seriously injured by the Hessian fly. This year the crop is almost entirely free from it. I have been thinking whether the harrowing, which I gave the wheat last fall, has any connection with this fact. As I understand the matter, the Hessian fly lays its eggs on the leaves of the young wheat plant early in the fall, and it is just possible that the repeated harrowings interfered in some way with the pro-

cess of hatching. It would be well not only to select

seed wheat for the fall sowing with care, and to free it from seeds of weeds even by hand-picking if necessary, but to prepare and sow a portion of the field with more than usual care for the production of seed for next year's crop. Much may be done in this way to improve the crops, and instead of farmers paying high prices for seed to persons who will take this care, they should do it for themselves and save this tax.

The seed is the parent of the crop, and poor seed will invariably pro-duce a poor crop. The heaviest, plumpest, and ripest seed is to be chosen, if we would secure the most profitable harvest. Of course no farmer should sow weeds, and expect to reap wheat, therefore the seed must be perfectly clean. It will pay to pick out cockle, chess, and such seeds by hand, rather than sow them to stock the ground hereafter. This present labor will be far the lighter than the after one of killing weeds. The proper selection of seeds for the fall-sowing is of the greatest impor-This is no new discovery, tance. but is a fact that needs no frequent repetition.

A few years ago we divided a tenacre field into five portions, and sowed them with wheat at the rate of one bushel, five pecks, six pecks, seven pecks, and two bushels of seed per

acre. There was no perceptible dif-ference in the soil of the field, nor any in the manuring, preparation, or sowing. At harvest time there was a very perceptible difference in the yield, the thinnest sowed portion being by far the best field, and the thickest portion the worst. Near the edge of the field, upon the thinnest sown part, where the seed had been thinned out by some pigeons, there were some stools of wheat with stalks, each bearing heads ; and in this part of the field the difference was mostly shown in the length of the heads. The other side of the field, where two bushels had been sown, produced much shorter heads than this portion.

Smut is a fungus. It is produced from "seed." As a rule, smut is produced by sowing seed-wheat that has the spores or seeds of the fungus attached to it. We must kill these spores before sowing the wheat. They are easily killed. Chamber-lye and lime will kill them; so will weak solution of common salt and water, say one pound of salt to a gallon of water. This will not hurt the seed-but a strong brine will serious-, mare its germinating properties. We think it very likely that a weak solution of carbolic acid will prove useful, but we have not yet tested it

sufficiently to recommend it. The remedy that we have the fullest confidence in, and which has been repeatedly tried, is as follows : For each bushel of wheat take three ounces of blue vitriol and dissolve it

the wheat, costing \$4.50 per acre. This yielded 29.3 bushels per acre. Section three contained 2.12 acres, and had 810 pounds of phosphate drill-ed in with the wheat, costing \$7.28 per acre. This yielded 37.5 bushels per acre. Section four contained 2.11 acres and had 500 neurods of bore durit drilled in

Section four contained 2.11 acres and had 590 pounds of bone dust drilled in with the wheat, costing \$5.16 per acre. This yielded 37.7 bushels per acre. Section five contained 2.06 acres, and had 800 pounds of ground lime stone drilled in with the wheat, costing \$1.20 per acre. This yielded 35.7 bushels per acre. Section six contained 3.83 acres and

Section six contained 3.83 acres, and had a little slacked lime scattered over it, intended to make it equal in fertility to the other sections before they were fertilized. This yielded 14.3 bushels All the above quantities are thresher's

measure, and, as the wheat weighs 65 pounds to the bushel, the actual quan-tity will be from 10 to 15 per cent. more. Assuming that the average of the field without fertilizers would have been 20 bushels per acre, (which is 5.7 bushels per acre more than the yield of the portion not fertilized), the profit from the use of fertilizers (calling the wheat worth \$1 per bushel) is as follows:

For salt, 2.28 acres, at \$8.60 per acre profit,.... For guano, 2.09 acres, at \$4.50 per acre profit,.... For phosphate, 2.12 acres, at \$10.22 per acre profit..... For bone dust, 2.11 acres, at \$12.24 per acre

For bone dust, 2.11 acres, at \$12.24 per acre profit, For ground lime stone, 2.06 acres, at \$14.50 per acre profit,

Total profit from fertilizers on 10.66 acres, \$107 63

26 46

29.87

This ground was carefully measured and staked off, and the different sec-tions harvested and threshed separately, tions harvested and threshed separately, and every precaution taken to secure accurate results. The field is a clay soil, mixed with some gravel, and has been thoroughly under-drained. It was sown to barley the spring before the wheat was sown, and yielded eighteen bushels per acre. Before the wheat was harvested, the sections on which salt and guano were used, looked equally as well as those sections treated with phosphate. is those sections treated with pho sphate. as those sections treated with phosphate, bone dust, and limestone; and, if they had not been threshed separately, it would not have been possible, from the appearance of the wheat, to determine which was the best. This fact has convinced me, that the only way to arrive at accurate results is thresh separately, as in this case. Sections yielding thir-ty-seven bushels per acre, looked no better than those yielding twenty-nine bushels per acre, I think it is not im-probable, that fertilizers have been con-demned as usaless, in many cases, when, if the grain had been threshed separate when would have shown for provide re-

y, they would have shown favorable re In this case, the ground limestone proved to be the most economical fertil izer, showing a profit over bone dust o \$1.96 per acre ; over phosphate, of \$4.25 per acre ; over guano, of \$9.70 per acre and over salt, of \$5.90 per acre. 1 an using the ground limestone on about using the ground intestone or about seventy acres of wheat this fail, and hope I may not have occasion to change the opinion formed from the foregoing tests, that, in proportion to cost, it is the best fertilizer for wheat. The field, on which the above tests were made, is being again sown to wheat, with a uniform dressing of one hun-dred pounds of bone dust, three hunared pounds of bone dust, three hun-dred pounds of ground limestone, to the acre, and will be again harvested and threshed separately, to ascertain the yield of the different sections the second year.—W. W. Reed in Agriculture of Pennsylvania, 1878.

#### Farmers Upholding the College,

Want of space prevents us from publishing entire the address of Overseer Leonard Rhone, at the late meeting of the Pomona Grange of this county, but we gladly make room for a portion of his very plain and just words regarding the late Legislature's report against our College:

that farmers have were those who loudly applauded the College. \* \* \* Such an underhanded attack on the only agricultural institution in our State by a set of mere demagogues, who have crept into the State Legislature, de-serves the derision and the contempt of

HARDWARE.

## WILSON, McFARLANE & CO. DEALERS IN

STOVES AND RANGES, PAINTS, OILS, GLASS, RAKES, FORKS,

CRADLES & SCYTHES.

SOLE AGENTS FOR

BELLEFONTE & SNOW SHOE

Leaves Snow Shoe 7.30 A. M., arrives in Bellefonte

Bellefonte 10.20 A. M., arrives at Show Shoe

"Superintendent.

A. M. aves Snow Shoe 2.42 P. M., arrives in Bellefonto

4 12 F. M. Leaves Bellefonts 4.55 F. M., arrives at Snow Shoe 6.27 F. M. DANIEL RHOADS,

BALD EAGLE VALLEY RAIL-ROAD.-Time-Table, December 31, 1877 : Exr. Mail. WESTWARD. EARTWARD. EXP. Mail.

Arrive at Tyrone Leave

Leave East Tyrone Leave... Vail "Vail" Baid Eagle "Hannah" Port Matilda "

Milesburg Bellefonte Milesburg Curtin

Curtin Mount Eagle Howard

Eagleville Beech Creek Mill Hall

Lock Haven

DENNSYLVANIA RAILROAD.

WESTWARD.

Harrisburg..... Williamsport. Lock Haven.

(Philadelphia and Erie ember 12, 1877 :

ERIE MAIL leaves Philadelp

or De

lian lionville ow Shoe In

## JOHNSON'S KALSOMINE.

ALLEGHENY STREET, . . . HUMES' BLOCK, . . . BELLEFONTE, PA.

CENTRAL
STATE NORMAL SCHOOL
DIAID NORMAD BOHOOD
(Eighth Normal School District,)
LOCK HAVEN, CLINTON CO., PA.

A. N. RAUB, A. M., Principal.

THIS SCHOOL, as at present con-attituted, offers the very best facilities for Pro-ional and Classical learning.
 indicings spacious, inviting and commodious; com-tely heated by steam, well ventilated, and furnish-with a bountful supply of pure water, soft spring with a bountful supply of pure water, soft spring

water. Location healthful and easy of access. Surrounding scenery unsurposed. Teachers experienced, efficient, and alive to their ipline, firm and kind, uniform and thorough. enses moderate. y cents a week deduction to those preparing to

n. indents admitted at any time, purces of study prescribed by the State: I. Mode col. II. Preparatory. III. Elementary. IV. Sci de

ADJUNCT COURES: I. Academic H. Commercial. HI. Music. IV. Art. The Elementary and Scientific courses are Pro-tessional, and students graduating therein receive Rate Diplomas, conferring the following and course-ponding degrees: Master of the Elementa, and Master of the Sciences. Graduates in the other courses receive Normal Certificates of their attainments, signed by the X-acity.

ormal Certificates of their attentions, and are a Facily. The Professional courses are liberal, and are acroughness not inferior to those of our best coller. The State requires a higher order of clinens he times demand it. It is one of the prime object of this school to help to accure it by furnishing in igent and efficient teachers for her achools. To and it solicits young persons of good abilities and it solicits young persons of good abilities

THE CENTRE DEMOCRAT BOOK and JOB OFFICE BUSH HOUSE BLOCK, BELLEFONTE, PA.,

IS NOW OFFERING GREAT INDUCEMENTS TO THOSE WISHING FIRST-CLASS

Plain or Fancy Printing.

We have unus LAW BOOKS, PAMPHLETS, CATALOGUES, PROGRAMMES, STATEMENTS,

CIRCULARS, BILL HEADS, NOTE HEADS, BUSINESS CARDS, INVITATION CARDS, CARTES DE VISITE, CARDS ON ENVELOPES,

AND ALL KINDS OF BLANKS

Printing done in the best style, on short notice and at the lowest rates. Mer Orders by mail will receive prompt

REMEMBER THE PLACE ! CENTRE DEMOCRAT OFFICE,

Bush House Block, HIGH STREET. GREAT REDUCTION.

ECONOMY IS WEALTH. The usual \$70 Machines reduced to only \$25. \$1.50 PER WEEK.

Horse & Wagon Free to Agents,

BELLEFONTE, PA.

Passengers by this train arrive in Belle FAST LINE leaves Philadelphia..... Harrisburg..... " " Harrisburg..... " Williamsport. " arrives at Lock Haven EASTWARD. PACIFIC EXPRESS leaves Lock Haven. Williamspor 6 40 a m 7 55 a m williamsport. arrives at Harrisburg.... Philadelphia. DAY EXPRESS leaves Renoro ERIE MAIL leaves Renovo..... Lock Haven.... Williamsport... \* Williamsport \* Arrives at Harrisburg \* Philadelphia. FAST LINE leaves Williamsport \* arrives Harrisburg \* Philadelphia.

Express West, and Lock 1991
 Express West, and Lock 1991
 Trains north.
 Brie Mall West, Niagara Express West, and Day Brie Mall West, Niagara Express West, and Day With B. Y. B. R. Cosry with O. C. & A. V. R.
 Frie Mail East and West connect at Eric with trains on L. S. & M. S. R. R., at Corry with O. C. & A. V. R.
 R., at Emperium with B. N. Y. & P. R. R., and at Driftwood with A. Y. R.
 Parlor cars will run between Philadelphis and Williameport on Niagara Express West, Eric Express West, Philadelphis Express East and Day Express West, Philadelphis Express East and Day Express West, Philadelphis Express East. Beeping cars on all night trains.

#### 1879. THE PATRIOT. 1879. Get Up a Club and Receive Your Paper Free.

The DAILY PATRIOT will be sent by mail to clubs at the following rates : \$6.00 per copy per year to a club of five. \$5.50 per copy per year to a club of ten. \$5.00 per copy per year to a club of twenty. \$4.50 per copy per year to a club of thirty.
\$4.00 per copy per year to a club of fifty. And one copy free for one year in every ense to the person getting up the club. Proportional rates for parts of a year The WEEKLY PATRIOT will be sent by

mail at the following rates : \$2.00 per annum for single copy. \$1.50 per annum per copy to a club of four. \$1.25 per annum per copy to a club of eight. \$1.00 per annum per copy to a club of fifteen.

in a quart of boiling water. When cool, sprinkle it over the wheat and

The late attack on the Pennsylvania State Agricultural College by the State Legislature was an indirect attack on our order and the farming class. On former occasions, when farmers received no consideration at the College, the ones that now denounce the only institution

# attention.

Igent and efficient bashers for her achools. To this for the solicits young persons of good abilities and good purposes—those who desire to improve their time and their talents, as students. To all such it promises ald in developing their percers and abundant opportunities for well-paid labor after leaving school. WM. BIGLER, S. MILLER MCCOMMER, Secretary. BOARD COMMER, Secretary. Clinton county—8. D. Ball, T. C. Hipple, Dr. J. H. Barton, A. H. Best, Jacob Rovers, E. P. McCornick, A. N. Babb, W. W. Bankin, R. G. Gock, Samuel Christ, G. Kitoring, S. M. Bickford, H. C. Diefenbach, J. C. C. Whaley, Tesse Merrill, S. Miller McCornack. Centre—Ex-Gov. A. G. Curtin. Clearfield—Ex-Gov. William Bigler. ap.17-1y

any inclination to wilt, though they were not covered nor in any way protected from the sun. The dry earth acts as a mulch, and retains the moisture about the roots of the plants, where it is needed.

setting them. As an example of the

WE HAVE just seen a statement that the Pennock Manufacturing seed has been sown, thus leaving the Company, of Kennett Square, Pa., who manufacture, among other agricultural implements, the double harpoon horse fork, sold this season all the stock they had on hand, and were or treble the market price for grain compelled to refuse a great many orders that they could not fill. This indicates that although "times are bin and take the seed as it comes, hard," and farm products are low priced, farmers can and will afford to buy implements that are really economizers. Our attention was drawn more particularly to this statement because this happens to be the kind its popularity and rapid sales. When we purchased one, some five or six the latter lodged badly, while the years since, the price was twelve dol. lars. We presume that, like every-

ter plowing roll, row repeatedly until all the clods are made fine.

The roller should be used immediately after the plow, to break up the lumps; then the cultivator and har-row will finish the work. This is the proper use of the roller. Its mis-The quantity of blue vitriol named is to roll the ground after the surface packed down close and solid, in which state it will crust over after the first shower.

It is more profitable to pay double to a farmer who takes pains to grow nice, clean seed of the best varieties, than for a farmer to go to his own good and poor, with many foul seeds in it. A farmer who sows poor seed save a dollar per acre, but he will lose ten for every one saved.

A committee of agriculturists in Michigan sowed 68 lbs. of wheat per acre in drills sixteen inches apart. of fork which we have been using for a number of years, after having tried once in the fall and twice in the various other makes, and from our spring. On another acre 90 lbs. were drilled in the usual way. The own experience we do not wonder at sixteen-inch drills gave 691 per cent. more wheat than the eight inch, and

It would be an interesting and we lars. We presume that, like every-thing else, it has since fallen in price, but whatever it may cost, we esteem it cheaper than any other we have ever seen would be at half the money. It is how at least one acre of wheat in drills, so far a part, that the crop could be cultivated. This may be done by tying each two of the drill to the yop means alreave the one acres and thus discharge Section one contained 2.28 acres, and had one barrel of salt per acre, sown over the ground after the wheat was drilled in. This yielded 29.6 bushels between a contained 2.09 acres, and had one barrel of salt per acre, sown over the ground after the wheat was drilled in. This yielded 29.6 bushels between acres and thus discharge It is by no means always the case spouts together, and thus discharg- had 400 pounds of guano drilled in with and corn give the best color.

turn the grain till every seed is moistened with the solution. Nothing more is needed. It is not necessary to use lime to dry the wheat. It

will be dry enough to sow with the drill as soon as it has been treated. but it will not be hurt if it remains The quantity of blue vitriol named above is sufficient to kill the smut, but double my quantity may be used without the slightest injury to the seed. Our own plan is to place, say 20 bushels of wheat in a heap on the barn floor, and sprinkle on to it, while it is being turned, about six

gallons of water containing 5 pounds of blue vitriol. If old wheat is used for seed, or if the wheat is very dry, more water will be needed to moisten it, say eight gallons for the 20 bushels. The great point is to be sure that every kernel and every part of the kernel is wet with the liquid.

The heap will need to be turned over half a dozen times, and the scattered kernels on the outside of the heap should be swept up to the heap and mixed with it so as to moisten them.

I sowed 14.92 acres with Lancaster red I sowed 14.92 acres with Lancaster red wheat last fall, and used salt, guano, phosphate, bone dust, and ground lime stone on different sections, leaving 3.83 acres with no fertilizers except a little slacked lime that was intended to make that portion of the field equal in fertility to the other sections before using the fertilizers on them. The result was as follows: follows:

every good citizen of Pennsylvania. The College may have faults that can be overcome in time, but it was never better conducted, nor was it ever well patronized as at present, or in bet ter favor with the farming or mechanical class. The present president of the College is the most common sensed of any that the institution ever had. He has identified himself thoroughly with the agricultural class of our State ; he is in great favor with our people, and is lecturing for them in nearly every county in the State, as he can find time between his high and important duties.

A few fowls sometimes prevent waste.

A hole cut in the boot of a farmer made it fit easier, but it also gave an opportunity to a copperhead snake that he stepped upon in his barn. He was bitten upon the exposed spot and killed.

The best shaped, best marked pullets should be preserved on the same principle and for the same reason that the best sow or cow, or mare should be kept where breeding is contemplated.

Hens fed on clear, sound grain, and kept on a clear grass-run, give much finer flavored eggs than hens that have access to stable and manure heaps and eat all kinds of filthy food. Hens feeding on fish and on onions flavor their eggs accordingly, the same as cows eating onions or cabbage, or drinking offensive water, impart a bad taste to the milk and butter. The richer the food, the higher the color of the eggs. Wheat 1 1.14

"THE FAMILY" SHUTTLE **\$25** SEWING MACHINE.

<section-header><section-header><section-header><text><text><text><text>

\$0.9) per annum per copy to a club of thirty \$0.85 per annum per copy to a club of fifty. \$0.75 per annum per copy to a club of one bundred.

And one copy free for one year in every case to gette up of club

The cash must accompany all orders to insure attention. All money should be sent by post office order or registered letter, otherwise it will be at the sender's risk. Address

> PATRIOT PUBLISHING CO. Harrisburg, Pa.

PATENTS AND

TRADE-MARKS.

We procure LATTERS PATENT ON INVENTIONS. NO ATTORNET FREE IN ADVANCE in application for PATENTS in the United States. Special attention given to Interference Cases before the Patent Office, and all Higgation appertaining to Inventions or Patents. We also procure Patents in Canada and other foreign

also procure Pictents in Change and all other constrins. Caveats Filed, Copyrights obtained, and all other business transacted before the Pattent Office and the Courts which demands the services of experienced Patent Attorneys. We have had ten years experience as Patent Attorneys.

THE SCIENTIFIC RECORD. All Patents obtained through our agency are noticed in the SCIENTIFIC RECORD, a monthly paper of large circulation, published by us, and devoted to Scientific and Mechanical matters. It coutains full lists of all allowed Patents. Supercription 25 cents a year, pat-paid. Specimen copy sent free. Sond us your address on postal acrd.

#### INVENTORS

Send us a description of your Invention, giving your DBA in your own language, and we will give an opinion as to patentability, with fail instructions, charging nothing for our advice. Our book, "How to procure Patents," about the Patent Laws, Patents, Oursets, Trade Matks, their costs, &c., sent free on connect.

ADDRESS : R. S. & A. P. LACEY, PATENT ATTORNEYS,

No. 604 F Street, WASHINGTON, D. C., Nearly Opposite Patent Office.

Arrears of Pay, Bounty and Pensions.

We have a Burean in charge of experienced lawyer, and clerks, for prosecution of all Boddier's Claims, Fayn Bounty and Pensions. As we charge no fee unleas successful, simps for return postage should be seen us. 1-4