

## science

Science is "knowing how." The only secret about Scott's Emulsion is years of science. When made in large quantities and by improving methods, an emulsion must be more perfect than when made in the old-time way with mortar and pestle a few ounces at a time. This is why Scott's Emulsion of cod-liver oil never separates, keeps sweet for years, and why every spoonful is equal to every other spoonful. An even product throughout.

In other emulsions you are liable to get an uneven benefit—either an over or under dose. Get Scott's. Genuine has a salmon-colored wrapper.

**ODOROMA**  
IMPARTS  
Beauty to the Teeth,  
Fragrance to the Breath,  
And that rosy, healthful color to the gums.  
O-d-o-r-o-m-a pronounced by expert chemists  
The Perfect Tooth Powder.

For sale by A. HIGGINBOTHAM



**KOOTENAY CURED WHERE  
50 DOCTORS FAILED.**  
For a number of years I was greatly troubled with a skin disease. I went to Hot Springs, Ark., and I actually believe I consulted over fifty doctors at different times without getting any relief. I took one bottle of your Kootenay Cure and it has cured me. Previous to using it I was unable to shave. It is no doubt a wonderful medicine. I recommend it most highly. Yours truly, A. TRUMAN,  
109 King St. E., Hamilton, Ont.

**VITRIFIED SALT  
GLAZED**  
WE MAKE  
**Sewer and  
Culvert Pipes**  
All Sizes from 4 in. to 24 in. Also  
Connections.  
WRITE FOR PRICES.  
THE ONTARIO SEWER PIPE CO.  
601 ADELAIDE ST. E., TORONTO.  
FACTORY AT MIDCO.

**DR. FOWLER'S  
EXT. OF**  
**WILD STRAWBERRY**  
HAS A RECORD  
OF 40 YEARS OF SUCCESS  
IT IS A SURE CURE  
FOR  
DIARRHOEA, DYSENTERY,  
CHOLERA, CRAMPS,  
CHOLERA INFANTUM,  
SUMMER COMPLAINTS  
IN CHILDREN OR ADULTS.

**UNDER OATH  
KOOTENAY**  
PARALYSIS CURED—SWORN STATEMENT.  
Mrs. Maggie McMartin, 27 Radnor St., Toronto, Ont., swears that Ryckman's "Kootenay Cure" cured her of Paralysis which rendered one side of her body entirely useless. Physicians said there was no chance of her ever recovering the use of her limbs. Hope deserted her, but to-day she is walking around telling her friends how Ryckman's "Kootenay Cure" gave her life and happiness. Sworn to, July 20, 1896, before J. W. Seymour Corley, Notary Public.

**SWORN STATEMENT OF A GRATEFUL  
MOTHER.**  
Louisa White, nine years old, who suffered with Kootenay since birth, has been entirely cured and her general system built up by Ryckman's "Kootenay Cure." The above facts are given in a sworn statement made by her mother, Mrs. George White, 129 Milson St., Hamilton, Ont., dated July 8, 1896, before J. W. Seymour Corley, Notary Public.

**A COMBINATION DISTURBED—A SWORN  
STATEMENT MADE.**  
Charles E. Newman, 13 Marlborough St., Toronto Ont., had a complication of blood troubles, Rheumatism, severe kidney trouble and constipation. He was frequently disturbed at night, lost his appetite and was a very sick man. His kidneys are now in a healthy condition, his appetite good, sleep undisturbed and constipation cured; all this was done by Ryckman's "Kootenay Cure." He makes sworn statement to the above facts before J. W. Seymour Corley, July 10, 1896.

## MANUAL EDUCATION.

IT FINDS EXPRESSION IN THE UP-TO-DATE TRAINING SYSTEM.

How the Work is Conducted and What Pupils are Expected to Accomplish—The Children in Actual Practice Take Great Interest in Their Work.

It is conceded by those thoroughly conversant with the subject, says Antoinette V. H. Wakeman in the Chicago Evening Lamp, that the Chicago High and Manual Training school is one of the best equipped and most managed institutions of its kind in this country. It was opened in the fall of 1890 under the management of Prof. A. R. Robinson, a Northwestern University man, who had for some years been prominently connected with the Chicago public schools, and who is still principal of this institution.

The cost of establishing the plant more than \$70,000, and would have been much more, but for the fact that property already owned by the Board of Education on West Monroe street, which includes an old school building, was utilized. The plant alone cost \$40,000. The appropriation for the conduct of this school is from \$40,000 to \$50,000 per annum, although the actual outlay at present is considerably less.

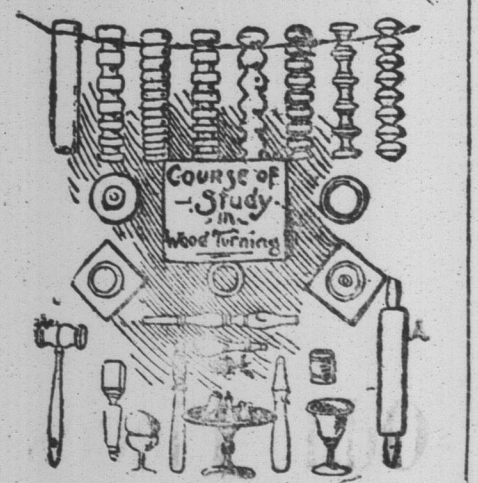
For instance, last year the total amount expended was \$33,000. Of this \$33,000 was for instruction. Both tools and materials are furnished by the Board of Education.

In each department connected with the manual training school specialists are employed who have a practical as well as theoretical knowledge of whatever they teach. Although the aim of the school is not to fit pupils for special work in any line, but to train a boy that he is able to think independently, constructively and independently and that his body may become the ready servant of his will; in each department he gains the same accurate and practical knowledge, as far as he goes, that he would in the shop.

The course of study in this school is the same as in other high schools of the city with this difference—the languages with the exception of French, are omitted. The students may be prepared to enter technical schools; the course includes two years of French. The examination for entering the school is the same as for other city high schools and the average age of entering pupils is 15 years. As has been said, there is nothing eliminated from the regular high school course excepting German and Latin in the curriculum of the Chicago English High and Manual Training school; the manual training, which is obligatory, is added, yet a boy completes a course here in three years, while it takes him four years to finish the ordinary high school course.

The student on entering this school begins the manual training course with wood work, and is occupied during the first year with its different branches. He begins with wood-turning, to which ten weeks are devoted. The next work is joinery, which occupies him the same length of time, and then he has cabinet and pattern making. The second year is devoted to foundry work and the blacksmith shop, and the third year to ordinary machine shop work. A feature of this school which lends an alluring interest to the students is that in each of the manual training departments completed work, with the exception of such as is kept in the school to exemplify what is being done, is the property of the pupil who has made it. In the wood working department all sorts of pretty and useful things are made, and it is pleasant to see with what enthusiasm the boys, who are not supposed to be interested in such matters, will work over a satin-lined glove or handkerchief box intended for a gift. The fancy lining he must provide himself; everything else is furnished by the Board of Education, and he often adds sachet powder, and when it is finished nothing could be daintier or, in its way, more attractive.

Among things made in this department are rolling pins, closely companioned by gavel, enough to make the whole world to order; Indian clubs for athletic exercise; graceful little tea tables; jardiniere stands; small cages



A PUPIL'S WORK COLLECTION.

for reference books and the patterns used for the cuttings in the foundry work. With the exception of the work is beautifully and neatly wrought, as it is held by the promoters that the aim of the school is to enable the pupil to do good and with perfect ease his well-to-do acquaintances, cannot be attained if the less should be required.

In the blacksmith shop and the foundry department the only various sorts of practical work is done, but much that is of great value is wrought from iron. Among the useful things made by these departments are beautiful lamp stands, and other sorts, no different from those made by the blacksmiths of more unskilled hands. The best establishments—those of the holders, hearth stoves and other things of this sort. The manual training school is such as to do for the boy what the blacksmith does for the man. It is not for nothing that the average

completed work of the manual training school is a small marine engine and a dynamo of 60 15 candle power lamps, which is used for lighting the building when artificial light is necessary. The motive power for this and the other departments is furnished by a 55 horse-power Corliss engine.

Each student is required to work two hours a day in the manual training department, and devote one hour a day to drawing. Between the two there is a close connection in this school. It is obvious that the mechanical drawing is constantly applied in each of the manual training departments. Four hours a week is devoted to this sort of drawing, and enough of geometrical construction is given to incite accurate thinking. It may be said in passing that architectural instead of mechanical drawing is taught in such a way as to form original, artistic designs.

One hour a week through the whole course is devoted to free hand drawing. The connection between the manual training and this department is not quite as evident as is the mechanical drawing, but when it is taken into account that it teaches the boy to see correctly, and express what he sees truthfully, its value is plain. More than this, it makes possible to the student the originality of design which is often in demand in the shop. In looking over the work done in this department it is evident that the students have not only learned to see correctly and express themselves truthfully, but to combine and separate in such a way as to form original, artistic designs.

The equipment of this school is thorough throughout, and the biological and chemical laboratories are no exception. In the former department some of the drawings with which the written exercises are illustrated are not only models of accuracy, but are pictures of most excellent.

In going through this school one is impressed with the spontaneous energy with which everything is done. There is nowhere the slightest evidence of perfunctory work. Over 400 students are in attendance and there is not a dull, uninterested face to be seen among them. They are in every way an especially fine-looking set of boys. In whatever department you see them they evidence the same eagerness that "work is a means of happiness and change of work a means of rest," for nowhere is there any weariness evidenced, and a congregation of humans who are, if one may judge from appearance, more unconsciously happy it would be hard to find. Most of the boys here have a distinct aim in life. Many of them are preparing to enter technical schools or to take technical college courses; others on leaving the school engage in occupations for which the skill they have acquired in the school especially fits them.

During the three years the Chicago English High and Manual Training school has been graduating students it has gained high recognition from leading colleges that have entered its students. Without solicitation on the part of the Board of Education or the faculty of the school, the College of Engineering of the University of Illinois has notified that principal that credits given students will be accepted for advanced standing in the university in architecture, mechanical engineering and mathematics. The University of Michigan also accepts credits given in this school for advanced standing.

## THE RIGHT KIND.

Waldo F. Brown Gives His Experience With Chicken Coops and Houses.

After over fifty years' experience in raising chickens, I have this year made a lot of coops that give better satisfaction than any I have ever seen, and I would advise every farmer to make some this winter. I believe that it is not exaggerating to say that millions of chickens are lost each year on account of the kind of coops they are kept in. They are eaten up by rats, drowned by rains, or poisoned by accumulated filth. On most farms the chicken coops are temporary affairs, made from old barrels or boxes, or simply a few stakes driven down and the hen crowded into a space entirely too small for her. I bought one patent coop for \$2, and found that I had paid just 1.99 more than it was worth.

Lately I have studied the subject and made a few coops and tested them this year, and while I do not think they cannot be improved, I have ever seen them better than any I have ever seen. In studying the subject I concluded that the essentials of a good coop were economy, portability, thorough protection from both storms and dampness, also from all enemies, and durability. For the coops should be made so that they will last ten years or more. The coop that I have chosen is made three feet square, with a floor raised six inches from the ground at the front and eight inches at the rear. The object of this slope being to prevent water from running to the back part in case of a driving storm, and the object in raising the floor is to give immunity from dampness, and yet leave no place for rats or other vermin to hide under the floor, and to make the floor more lasting than it would if resting on the ground.

To make the coop light, we use posts at the corners two inches square, cover it with half-inch lumber, and make the roof of sheet-iron. For ventilation, we cut a small window, say 8 by 12 inches, at each side, and cover it with wire netting on the inside; but have a small slide-door on the outside, to close in cold or stormy weather. At the front we make a door as wide as the coop, excepting a three-inch strip at each side, and this door is a light frame, covered with wire netting so close that the smallest chicken cannot get through it, and hung with hinges so that it can swing open when we wish to let the hen or brood out. When the coop needs cleaning, we open the door, and with a hoe and broom can soon remove all accumulations.

When the coop is finished, we spike a strip to each side, which projects both front and rear about 18 inches, to be used as handles to move it, and two men can walk right along with one of them. These strips used as handles should be 1 by 3 inches, of light but strong wood, and the corners should be rounded where they project.

A run should be made in front of the coop, the sides being made of movable panels of fence made of fine-mesh wire—one inch, as young chickens

and ducks will go through two-inch mesh until they are three or four weeks old. I buy this fence in the roll for 40 cents a rod, and the two-inch mesh for 20 cents. The panels of fence should be made strong, and so put together that they will remain firm. For young ducks no floor will be needed, but the only way to keep young chickens from having the gaps is to keep them from the ground until they are six weeks old. One hen will take care of 40 ducks or 25 chickens in one of these coops; and after the ducks are three weeks old, and the weather is settled, they are as well or better off without a hen.

I can raise chickens better in an upstairs room than in any other place. I have a hog-house 8 by 12 feet, with a six-foot story below, and for several years I have used the upper floor for young chickens. I put four hens loose with 25 chickens each in it, and each hen keeps her own corner to brood them in, and I have never had a chicken killed by the hens. We keep a shallow box of fine gravel, and one of ashes and dust for their bath, and the chicks keep healthy and outgrow any that I have ever kept on the ground. This last May I hatched an incubator lot, and a few hens at the same time, and I put 30 in this lot, and the rest in coops, and those in the lot all lived and grew so that it was hard to convince a stranger that they were of the same age as the ones in coops. I took them down at four weeks old, which was too soon, for one or two of the hens went to laying, and left one hen with 30, and then came up a driving, cold rain, and they piled up and smothered 30. This is one thing to be guarded against with chickens, but they will never do it if kept dry, warm, and here is one point in which ducks are superior to chickens, as they never pile up so as to smother.

With such coops as I illustrate, and 25 chickens only in a coop, there would be little danger of loss, for rats will not go through the fine wire, as they are too cautious. I greatly prefer these coops for ducks to any I have ever tried, but up-stairs rooms for chickens are the best, and by making them rat-proof the barn lofts can be utilized for early chickens, the latter are usually empty until June.—Waldo F. Brown, in Country Gentleman.

## Dufferin as an Arctic Explorer.

Among the arctic explorers is Lord Dufferin, who more than fifty years ago was in the northern seas in the yacht Foam. At Reykjavik, the capital of Iceland, he made the acquaintance of Prince Napoleon, who was also yachting off the coast of Iceland. Lord Dufferin pushed up to the dangerous seas off the island of Spitzbergen.

## The Small Things of Life.

The little duty shirked or the little discrepancy covered up may lead to disastrous results in a clerk's life, just as some times does a hidden flaw in a piece of machinery.

## Simple Enough.

"How is it that Twitter can get his teeth extracted for nothing?"

"Oh, he has a pull with a dentist."

## THE MASTER TOUCH.

In the still air the music lies unheard; In the rough side the beauty is hid. To make the music and the beauty needs The Master touch, the sculptor's chisel keen. Great Master, touch us with thy skilled hand; Let not the music that is in us die! Hidden and lost, Thy form within us lie! Spare not the stroke. Do we as Thou wilt! Let there be naught unfinished, broken, marred; Complete thy purpose, that we may be—Thy perfect image, Thou our God and Lord!

## No Other Remedy.

No other remedy cures Summer Complaint, Diarrhoea, Dysentery, etc., so promptly and quietly as Dr. Fowler's Extract of Wild Strawberry. It is a pocket doctor for tourists, travellers, etc.—61-2.

## Suddenly Attacked.

Children are often attacked suddenly by painful and dangerous Colic, Cramps, Diarrhoea, Dysentery, Cholera Morbus, Cholera Infantum, etc. Dr. Fowler's Extract of Wild Strawberry is a prompt and sure cure which should always be kept in the house.—61-2.

## Letters Come.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

It is the voice of the people recognizing the fact that Burdock Blood Bitters cures all diseases of the Stomach, Liver, Bowels and Blood. Mr. T. G. Ludlow, 334 Colborne Street, Bradford, Ont., says: "During seven years prior to 1896, my wife was sick all the time with violent headaches. Her head was so hot that it felt like burning up. She was weak, run down, and so feeble that she could hardly do anything, and so nervous that the least noise startled her. Night or day she could not rest and life was a misery to her. I tried all kinds of medicines and treatment for her but she steadily grew worse until I bought six bottles of Burdock Blood Bitters from C. Stork & Son, of Brampton, Ont., for which I paid \$5.00, and it was the best investment I ever made in my life. Mrs. Ludlow took four out of the six bottles—there was no need of the other two, for those four bottles made her a strong, healthy woman, and removed every ailment from which she had suffered, and she enjoyed the most vigorous health. That five dollars saved me lots of money in medicine and attendance thereafter, and better than that it made home a comfort to me."

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

It is the voice of the people recognizing the fact that Burdock Blood Bitters cures all diseases of the Stomach, Liver, Bowels and Blood. Mr. T. G. Ludlow, 334 Colborne Street, Bradford, Ont., says: "During seven years prior to 1896, my wife was sick all the time with violent headaches. Her head was so hot that it felt like burning up. She was weak, run down, and so feeble that she could hardly do anything, and so nervous that the least noise startled her. Night or day she could not rest and life was a misery to her. I tried all kinds of medicines and treatment for her but she steadily grew worse until I bought six bottles of Burdock Blood Bitters from C. Stork & Son, of Brampton, Ont., for which I paid \$5.00, and it was the best investment I ever made in my life. Mrs. Ludlow took four out of the six bottles—there was no need of the other two, for those four bottles made her a strong, healthy woman, and removed every ailment from which she had suffered, and she enjoyed the most vigorous health. That five dollars saved me lots of money in medicine and attendance thereafter, and better than that it made home a comfort to me."

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

It is the voice of the people recognizing the fact that Burdock Blood Bitters cures all diseases of the Stomach, Liver, Bowels and Blood. Mr. T. G. Ludlow, 334 Colborne Street, Bradford, Ont., says: "During seven years prior to 1896, my wife was sick all the time with violent headaches. Her head was so hot that it felt like burning up. She was weak, run down, and so feeble that she could hardly do anything, and so nervous that the least noise startled her. Night or day she could not rest and life was a misery to her. I tried all kinds of medicines and treatment for her but she steadily grew worse until I bought six bottles of Burdock Blood Bitters from C. Stork & Son, of Brampton, Ont., for which I paid \$5.00, and it was the best investment I ever made in my life. Mrs. Ludlow took four out of the six bottles—there was no need of the other two, for those four bottles made her a strong, healthy woman, and removed every ailment from which she had suffered, and she enjoyed the most vigorous health. That five dollars saved me lots of money in medicine and attendance thereafter, and better than that it made home a comfort to me."

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

## RIGHT KIND OF CHICKEN COOP.

## GOUGH BROS.

Tough Clothes FOR THE Boys

Young Canada Begins another Six Months' Schooling.

Tough clothes for boys to wear to school this Fall and Winter. That's the burden of our song. Strong clothes to stand the wear and tear of play, rough but healthy. Strong clothes to stand the work of out of doors in cold weather. We have just such things for the youngsters, and besides being full of wear, they are neat and shapely. Did the last suit of clothes you bought for your boy from us wear as well as it ought to have worn, considering the price paid? If it did you should go to the same store for the next suit. You get your money's worth. We deserve your patronage. We'll do better by you and by the boy than any other clothier.

## Five Cases of Boys' New Suits

These are only the advance guard of our Fall stock, for the boys. There are two and three piece Suits, and will fit boys all the way from 3 to 12 years. We sell the best of everything to keep in the heat and keep out the cold from boys. We were boys ourselves once—it seems an awful long time ago. We've all good qualities of boys' clothing. We've—probably—more boys' clothing in our store than all the other stores put together. We've a weakness for supplying the boys. Ask yours if this isn't so? Some idea we may give you of the value and inducement we purpose giving to buyers, when we say that

## A \$2.00 BILL

will buy a beautiful, heavy, all wool, neatly made, well trimmed, and built Auburn Mills Tweed Suit. Of course we've cheaper suits, and as low as 95c. per suit. Better Suits up to \$3.00 and \$4.00, but

## OUR - - - - \$2.00 SUIT IS A CORKER

Just the thing for a boy's school Suit, and as good as ever sold for \$3.50.

Mothers should see these Suits. You know value. You know your boy's clothes-wrecking propensities.

Come to us. We're full of economical suggestions. No matter what your money is, we help you to make it go as far as it can. Come! The verdict is nearly always in our favor. It isn't often that the careful buyer decides against us.

## "TOUGH CLOTHES FOR THE BOYS"

THAT'S OUR MOTTO.

## GOUGH - BROTHERS

The Wonderful Cheap Clothiers,

LINDSAY. PETERBORO. PORT HOPE.

## Burse Tempters.

Who can think of a simple thing to patent? Write JOHN WEDDERBURN, Patent Attorney, Washington, D. C. for their \$1.00 prize offer and list of two hundred inventions wanted.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.

Letters come day by day telling us that this person has been cured of dyspepsia, that person of Bad Blood, and another of Headache, still another of Biliousness, and yet others of various complaints of the Stomach, Liver, Bowels or Blood, all through the intelligent use of Burdock Blood Bitters.