Hale and Hearty.

These two adjectives by no means imply the possession of great muscular strength. There are many men and women of slight build and inferior stature to whom the terms "hale and hearty" perfectly apply. Their complexions are clear, eyes bright and vivacious, pulses tranquil, step elastic, movements steady, sleep undisturbed, appetites sound. These *indicia* of haleness and heartiness Hostetter's Stomach Bitters will assuredly bestow upon the feeble, the nervous and dyspeptic. No tonic of the century compares with it in popularity, no other rivals it in efficacy. As permanent invigoration means also the previous regulation of disorder in the system, Hostetter's Stomach Bitters must also be regarded as chief among regulators. It conquers and prevents malaria and rheumatism, overcomes inactivity of the liver, bowels and kidneys, and promotes the acquisition of flesh as well as vigor.

A Box on the Ear.

One of Browning's most beautiful and pathetic poems commemorates the act of an old Earl of Arundel, who, having struck his little child on the head, had the picture of himself and child painted, the child as he became in after years, imbecile from the effects of that blow. It would be well for that parent, and for those having children on their hands, to commit these verses to memory; for the injury done to children by the quick and careless box on the ear, that is thought nothing of at the time, is something incalculable.

Watch Glasses.

It is interesting to know something of the details and labor connected with the production of these handy adjuncts to the laboratory. The glass is blown into a sphere about a meter in diameter, sufficient metal being taken to give the required thickness, as the case may be. Disks are then cut from this sphere with the aid of a pair of compasses, having a diamond at the extremity of one leg. There is a knack in detaching the disk after it has been cut. A good workman will cut 6,000 glasses in a day.

The Deadly Cigarette.

If anyone were discovered putting arsenic and phosporus in the cigars which men use, how soon a law would be found or made to fit his case. But when the same poisons are employed in preparing cigarette wrappers, with fatal results to boys, there is no mention made of legal proceedings contemplated or begun. Anti-cigarette legislation is practically a failure, but there is no good reason why a law against poisoning tobacco should not be made a success.

CLARICE—And so your engagement with Maitland is really off? Isabel—Yes, I got tired of machine-made love. Clarice—Machine-made love? What do you mean? Isabel—He wrote all his letters on a typewriter.

THIS century has produced no woman who has done so much to educate her sex to a thorough and proper knowledge of themselves as Mrs. Lydia E. Pinkham.

W. A. SARTORIS, of England, an uncle of Nellie Grant Sartoris, has been on a quiet tour of the West, with a view of making some investments.

ALBERT BURCH, West Toledo, Ohio, says: "Hall's Catarrh Cure saved my life." Write him for particulars. Sold by Druggists, 75c.

PAUL KRUGER, the President of the Transvaal, receives a salary of £8,000 a year, but is not much on style.

IF afflicted with Sore Eyes, use Dr. Isaac Thompson's Eye Water. Druggists sell it. 25c.

CHANGE for the worse—Contribution, for the heathen.

No Opium in Piso's Cure for Consumption. Cures where other remedies fail. 25c.

THERE are 31 millionaires in Denver.

FITS.—All Fits stopped free by Dr. Kline's Great Nerve Restorer. No Fits after first day's use. Marvellous cures. Treatise and $2.00 trial bottle free to Fit cases. Send to Dr. Kline, 931 Arch St., Phila., Pa.

Gone

—all the painful disorders and chronic weaknesses peculiar to the female sex. They go, with the use of Dr. Pierce's Favorite Prescription. Periodical pains, weak back, bearing-down sensations, nervous prostration, all "female complaints" are cured by it. It is purely vegetable and perfectly harmless—a powerful general, as well as uterine, tonic and nervine, imparting vigor and strength to the whole system. It costs you nothing if it fails to give satisfaction. It's *guaranteed* to do so, in every case, or the money is refunded. It *can* be guaranteed—for it *does* it. No other medicine for women is sold on such terms.

That's the way its makers prove their faith in it. Contains no alcohol to inebriate; no syrup or sugar to derange digestion; a legitimate *medicine*, not a *beverage*. Purely vegetable and perfectly harmless in any condition of the system.

World's Dispensary Medical Association, Proprietors, No. 663 Main Street, Buffalo, N. Y.

The Soap that Cleans Most is Lenox.

OUR COUNTRY ROADS

ARE SADLY NEGLECTED PUBLIC INSTITUTIONS.

A Few Suggestions Concerning Their Structure and Maintenance—Illustrations of the Effects of Both Good and Bad Causeways—Good Roads Are Profitable.

A prominent English gentleman, who, while traveling through the States, had occasion to do considerable riding through the smaller towns and country districts, once remarked that while the buildings he saw represented a high standard of civilization, the roads were still frontier highways, on which little thought or money had been spent.

To the expeditious traveler the winding roads so often seen seem to be the greatest possible distance between two points, and are not only an annoyance, but cause an absolute loss of time and money.

The losses resulting from the imperfect building of roads, if seen or felt in the aggregate, would call the attention of the public to this work until evils would be remedied; but unfortunately the same indifference is in human nature which the old Eastern farmer showed when he drove every day around the great stump in his driveway. Instead of trying to remove it, he said: "Oh, it's only a little bother to drive around it, but 'twould take a day to dig it out." In building roads in this country too little attention is paid to two important things, viz., good surveying and proper drainage.

WORKING OUT ROAD TAX.

Road limits should be as straight and clearly defined as the rows of the marker in a cornfield.

The Romans, without consideration of expense, always made their roads the shortest distance between two points to be connected. This will not of course be found to be practicable in many instances; but, while the road must be laid in such place and manner as to make the least expense of building and repairing, some sacrifice of money and labor can be afforded, when the question of loss of time is to be considered. Of course there can be no arbitrary rule in regard to width, but many country roads are inconveniently narrow. I have often driven over long stretches of road in the State of Illinois, where to meet a team meant certain collision, and have several times seen a light buggy lose its balance and women, children, and numerous bundles of dry goods and groceries roll in general confusion down the embankment, simply because of too narrow a road-bed. A bed amply wide enough for the meeting and passing of vehicles, with a strip of sod five or six feet wide on either side, would be much more satisfactory, and its construction would require but little more labor or expense.

"ONLY A SHORT WAYS 'ROUND."

For country roads the greatest inclination should not exceed a rise of from five to seven feet in one hundred. For heavy teaming a road rising ten in one hundred is supposed to be injurious. Near the highest point the grade should either be decreased or the plan adopted by Telford practiced. Where the expense of making a piece of road a mile long on a less grade than five in one hundred was too great, he provided for the increased fatigue of the horses by building a mile of much smoother and better road than that of the first part of the ascent. There are few localities which are not provided with some suitable material for building or repairing, yet in localities where such material abounds may often be found the worst possible roads. The loss by wear and tear on horses and vehicles on a stretch of poor road in one month, where constant traffic is to be supported, would cover the expense of building a road which, with slight repairs, would last for years. In St. Joseph County, Michigan, a strip of corduroy through a marsh thirty rods long caused two deaths years ago. The township paid $5,000 in one instance, and losses resulting from accidents from time to time would make no small sum; yet the road remains in an unsafe condition, while at either approach to this strip is material enough to make a road sixty feet wide, and its use would remove two long, heavy grades.

The indifference and ignorance of farmers in working out a poll-tax is unexplainable. A half dozen men, with two or three teams, meet to repair a road which is used for heavy traffic. These men are obliged many times to haul loads over roads which have no foundation drainage and imperfect surface drainage, full of holes and washouts; yet without plan or method they gather, and by the use of the scraper the dirt from the roadside is dumped onto the roadbed, which has not been prepared to receive it.

One or two enterprising citizens fill up two of the ten holes without removing the cause, while the others sit about on the rail fence and discuss the tariff and similar subjects, upon which these public spirits are so well versed.

"A stitch in time saves nine," applies to road-building as well as to feminine employment.

To simply fill up a hole with the substance nearest at hand generally proves about as satisfactory as trying to fill a sieve with water.

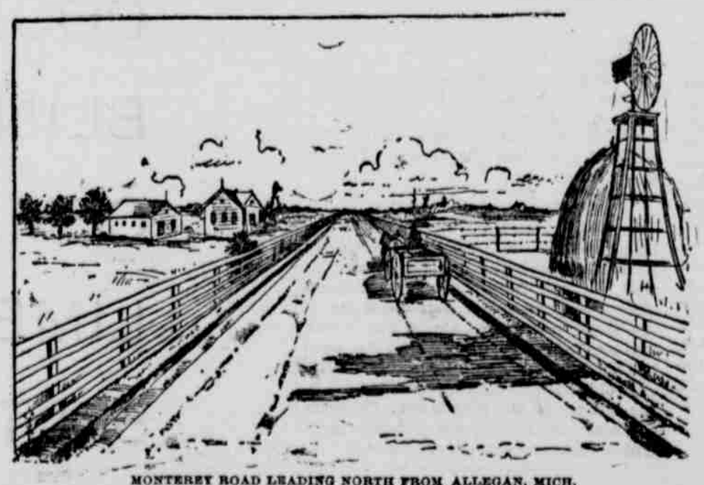
Wherever a piece of quicksand is found, it should be thoroughly removed, if possible, and the hole filled with stone or some hard material.

The custom of dumping stone, regardless of size, into low places, and then covering with roadside dirt, causes much trouble. The small stones soon work to the bottom and the large ones to the surface, where they become slippery, and as they are not bound together they cause a jolting which is harder on horses and vehicles than hauling through mud would be.

The Chinese roads are built, many of them, of solid rock. If some system which was a compromise between the macadam and Chinese systems could be carried out, the problem would be solved. The macadam roads, where they can be afforded, are undoubtedly the best. A study of the Telford and macadam methods by all citizens interested in public affairs would be very helpful.

The width, depth and method of construction must be governed by circumstances, but the depth should, of course, depend upon the amount of traffic the road is required to support. For heavy traffic a depth of from twelve to eighteen inches should be observed. The stones should be small, with sharp edges, and should be closely packed. The road-bed should be dug in the form of a trench the required width, where thorough work can be afforded. After packing the stone the interstices should be filled with chips, and finely broken stone placed on top. This should be packed and pulverized with the roller, then covered with a layer of gravel or screenings. Of course the expense of a road of this character would prevent its use at the present time in country districts except in the worst places, and in such contingencies the most thorough method is the most economical. Considerable attention has been given to surface drainage, but many well-built roads are watersoaked until ruined for lack of proper sub-drainage. Good drainage should be obtained regardless of expense; the necessary ditching may be utilized for draining adjacent lands.

In many places in Illinois swampy meadow lands have been redeemed by the ditching made for road drainage. It is hard to estimate the addition which good roads give to land values, but farmers especially are becoming awake to the fact that improvements in property consist not simply in trees and buildings but in building and maintaining good roads. In sandy country it pays to haul clay and gravel a distance of four or five miles.



MONTEREY ROAD LEADING NORTH FROM ALLEGAN, MICH.

The town of Allegan, Mich., a village of 2,600 people, situated in the center of trade for over 20,000 people, is in the worst possible location for building even fair roads. But all the roads leading out from Allegan are clayed, graded, turnpiked, and drained for a distance of eight miles in every direction.

The clay and gravel were hauled in many instances four miles. The result of this outlay of money and labor is that these naturally bad roads are good at all seasons of the year, and the farming lands are more valuable than in similar locations where these improvements have not been made.

Villages and towns have authority to vote special amounts for road building, and though the present laws are unsatisfactory in many ways, a proper use of existing laws would bring about a state of affairs more fitting to our present civilization. Let road districts unite in a proposition to begin at a certain point and make thoroughly good roads for certain distances each year.

A small stretch of road, well built, with proper drainage, would furnish an inspiration to all who had occasion to use it, which might lead to an enthusiasm for this too often neglected branch of public work. No method of building can do away with the need for constant repairing. Much labor and expense could be saved by taking the work in hand soon enough. The covering wears away and the road, whose rounding surface should always be preserved, is in need of a new, small supply.

If this work could be done oftener, the new material would quickly join with the old, if put on in small quantities, and the hindrance to traffic over patched places would be in a degree avoided. In filling holes the work should be so thoroughly done that the rounding surface of the road may be observed, instead of burdening traffic with a heap of stones in the roadbed.

Unless strong reasons exist to the contrary the work should be done when the ground is wet. In filling long ruts only short pieces should be filled at a time. If work is all done at once, vehicles avoid the place, and new ruts are formed. The use of the roller in the building of roads is too well known to need mention, but a section of patched road, which is practically useless for six months in a year, could be made much more suitable for traffic by its use.

The Yankee in London opens his eyes at the unusual speed with which he is whirled through the busy streets of that city. He grasps his carpetbag tightly in both hands and bends his long body forward as he rides to what seems to him certain death.

Such speed would be checked by a policeman in New York or Boston. The carriage in which he rides is heavier than those he has seen at home. The horses are much better-looking than those seen in our cities.

Says Dr. Holland, in a letter to the Springfield (Mass.) *Republican:* "I have never seen but one lame horse in London during all my stay here. The English horse does twice the work of an American horse similarly employed. The simple explanation is, that the Englishman has invested in perfect and permanent roads what the American expends in perishable horses which require to be fed."

MEETING IN A "BAD STRETCH."

500,000 MILES A MINUTE.

An Electric Current Girdles the Globe in Three Seconds.

Philadelphia scientists are preparing to find out how fast an electric current travels. An experiment will be made, probably from the Franklin Institute, by connections over the Atlantic cable to Liverpool and return. A recent test appeared to show that an electric current is a slow coach as compared to light, being only able to get over to Europe and back in something like a second, or at the rate of only some four hundred thousand miles a minute, while light ambles along at a million-mile-a-minute gait. The Philadelphia scientists who are proposing to make further investigation are not satisfied to give up the record to sunlight, and hope to prove that the electric current, if not handicapped, is the swifter element. The most recent experiment was tried at McGill College, Montreal, says the Philadelphia *Record*. The current was transmitted in Montreal, was transferred to the cable at the Newfoundland cable station by means of Thomson's mirror galvanometer, sent across to the station at Liverpool, and returned to Montreal by the same method. The distance traversed, partly by overhead wire and partly by cable, was 8,000 miles. From the time the current left the key in Montreal until it returned to the receiver in the same office just 1 second and 1-20th of a second had elapsed; but the conditions were not as good as they might have been, hence the further experiment to be made here. The rapidity with which the current travels over short wires with no delay indicated unlimited possibilities in the direction of practical tests. Prof. Marks, of the Edison Electric Light Company, is authority for the assertion that if the globe was encircled with a continuous cable a current would travel the entire distance in a trifle over three seconds. At this rate a curent would travel to the sun, covering the entire distance of 96,000,000 miles in three and a half hours. "In this age of science," said one of the gentlemen who will participate in the experiments, "people have an idea that we know so much now there is nothing more to be discovered. Why, we are yet in our infancy as far as electricity goes. New discoveries will yet be made, and we will live to see them put into practical use, which will revolutionize the entire world. The experiment which we are about to make in telegraphy is only a feeler which will lead to other and more startling experiments. The establishment of telephone communications between the hemispheres is already being seriously discussed."

WOMAN suffrage has been rejected by the Michigan Legislature, and voting in the State will be confined to Michiganders instead of being extended to Michigeese.

Gratifying to All.

The high position attained and the universal acceptance and approval of the pleasant liquid fruit remedy, Syrup of Figs, as the most excellent laxative known, illustrate the value of the qualities on which its success is based, and are abundantly gratifying to the California Fig Syrup Company.

Used Up.

A Detroit youth of 6 years, who has just begun going to school, was so impressed with the importance of it that he was early out of bed and down promptly to breakfast for two mornings. The third morning he came a little late, looking very sleepy.

"How's this?" said his father, pretending to reprove him.

"Well, by jiminy!" said the youngster, "this hard work at school is using me up."

THIS century has produced no woman who has done so much to educate her sex to a thorough and proper knowledge of themselves as Mrs. Lydia E. Pinkham.

TAKE iron stains from marble with lemon juice or a mixture of spirits of wine and oxalic acid.

IF afflicted with Sore Eyes, use Dr. Isaac Thompson's Eye Water. Druggists sell it. 25c.

PAINTING the town red should be classed among the cardinal sins.

No Opium in Piso's Cure for Consumption. Cures where other remedies fail. 25c.

JUSTIN S. MORRILL, the father of the Senate, is now 80 years of age.

My Liver

Has for a year caused me a great deal of trouble. Had soreness in the back, little appetite, a bitter taste in the mouth, and a general bad feeling all over that I could not locate. Have been taking Hood's Sarsaparilla for the past three months with great benefit. I feel better, the

Bad Taste in the Mouth

is gone and my general health is again quite good. No longer feel those tired spells come over me as I formerly did.

Hood's Sarsaparilla

is certainly a most excellent medicine." MRS. I. B. CHASE, Fall River, Mass.

N. B. Be sure to get Hood's Sarsaparilla.

BLOOD! Send drop on clean piece white blotting paper, with age, sex, occupation. Microscope magnify 50,000 times. I send free particulars your disease. DR. T. N. CROWLEY Terre Haute, Ind.

PILES ANAKESIS gives instant relief, and is an INFALLIBLE CURE for PILES. Price, $1; at druggists or by mail. Samples free. Address "ANAKESIS," Box 2416, NEW YORK CITY.

DONALD KENNEDY

Of Roxbury, Mass., says

Kennedy's Medical Discovery cures Horrid Old Sores, Deep Seated Ulcers of **40** years' standing, Inward Tumors, and every disease of the skin, except Thunder Humor, and Cancer that has taken root. Price $1.50. Sold by every Druggist in the U. S. and Canada

PASTOR KOENIG'S NERVE TONIC

Had the Desired Effect. II

CARROLLTON, Green Co., Ill., Nov., '88.

I highly recommend Pastor Koenig's Nerve Tonic to anybody that has suffered from headache as my son did for 5 years, because 2 bottles of the medicine cured him. M. MCTIGUE.

LINCOLN, Ill., May, 1890.

About two years ago our boy was cured by two bottles of Koenig's Nerve Tonic of St. Vitus' Dance; since then many people in this city took it on our recommendation, and all are well pleased with the good effect of the remedy. N. JUSTIN.

JERSEYVILLE, Ill., May, 1890.

My little nine-year old girl had St. Vitus' Dance for about a year. Two bottles of Pastor Koenig's Nerve Tonic cured her. She had no symptoms of it since a year. I therefore think that the Tonic is as it is recommended to be. ED MCDERMOTT.

FREE—A Valuable Book on Nervous Diseases sent free to any address, and poor patients can also obtain this medicine free of charge.

This remedy has been prepared by the Reverend Pastor Koenig, of Fort Wayne, Ind., since 1876, and is now prepared under his direction by the

KOENIG MED. CO., Chicago, Ill.

Sold by Druggists at $1 per Bottle. 6 for $5. Large Size, $1.75. 6 Bottles for $9.

RADWAY'S READY RELIEF.

INTERNALLY—A half to a teaspoonful in half a tumbler of water will in a few minutes cure CHOLERA MORBUS, CRAMPS, Spasms, SOUR STOMACH, NAUSEA, VOMITING, HEARTBURN, DIARRHŒA, Dysentery, Summer Complaint, Colic, Flatulency, Fainting Spells, Nervousness, Sleeplessness, Sick Headache, and all internal pains.

Malaria in its various forms cured and prevented. There is not a remedial agent in the world that will cure Fever and Ague and all other fevers (aided by RADWAY'S PILLS) so quickly as RADWAY'S READY RELIEF.

ACHES AND PAINS.

For headache (whether sick or nervous), toothache, neuralgia, nervousness and sleeplessness, rheumatism, lumbago, pains and weakness in the back, spine or kidneys, pains around the liver, pleurisy, swelling of the joints, and pains of all kinds, the application of Radway's Ready Relief will afford immediate ease, and its continued use for a few days effect a permanent cure.

50c. per Bottle. Sold by Druggists.

RADWAY'S PILLS,

An Excellent and Mild Cathartic. Purely vegetable. The safest and best medicine in the world for the cure of all disorders of the Liver, Stomach, or Bowels.

Taken according to directions, they will restore health and renew vitality.

Price, 25c. a box. Sold by all druggists, or mailed by RADWAY & CO., 32 Warren Street, New York, on receipt of price.

"August Flower"

For Dyspepsia.

A. Bellanger, Propr., Stove Foundry, Montagny, Quebec, writes: "I have used August Flower for Dyspepsia. It gave me great relief. I recommend it to all Dyspeptics as a very good remedy."

Ed. Bergeron, General Dealer, Lauzon, Levis, Quebec, writes: "I have used August Flower with the best possible results for Dyspepsia."

C. A. Barrington, Engineer and General Smith, Sydney, Australia, writes: "August Flower has effected a complete cure in my case. It acted like a miracle."

Geo. Gates, Corinth, Miss., writes: "I consider your August Flower the best remedy in the world for Dyspepsia. I was almost dead with that disease, but used several bottles of August Flower, and now consider myself a well man. I sincerely recommend this medicine to suffering humanity the world over."

G. G. GREEN, Sole Manufacturer, Woodbury, New Jersey, U. S. A.

DR. HARTER'S IRON TONIC

RELIEVES all Stomach Distress.
REMOVES Nausea, Sense of Fullness, Congestion, Pain.
REVIVES Failing ENERGY.
RESTORES Normal Circulation, and Warms to the Tips.

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Chartered by the State.

Authorized Capital $150,000.

Conducted by a Full Staff of Physicians, three of whom are noted German Specialists.

FOR THE EXCLUSIVE TREATMENT OF ALL CHRONIC DISEASES.

Ample Facilities for Room and Board.

Each Disease treated by a Physician, who makes it a specialty; five of our staff receiving their education and experience in Europe, where a Doctor must study seven years instead of three as here. If afflicted with *Catarrh, Consumption, Asthma or any Lung Trouble*, consult our Specialist. Our treatment of *Stomach, Liver, Heart and Kidney Troubles* has no equal.

Rheumatism, Goitre, Tape Worm and *all Skin Diseases* treated.

Our German Eye and Ear Specialist has cured many cases when pronounced incurable.

Our treatment for *Epilepsy, Paralysis and Nervous Troubles* has met with wonderful success.

Delicate Diseases of Men or Women have had special provision made for their treatment.

Strictest privacy maintained and all communications confidential.

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If afflicted with any disease address in any language

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The *strongest* and *purest* Lye made. Will make the *best* perfumed Hard Soap in 20 minutes *without boiling*. It is the Best for softening water, cleansing waste-pipes, disinfecting sinks, closets, washing bottles, paints, trees, etc.

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"Hang It All." Funniest puzzle out. Brand new. Placed on sale everywhere, August 15, 1891. Advance orders reached 500,000! Sells itself. Pleases Papa, Mamma laughs, Tommy tries it, Kittie can do it. $50 worth of pure fun for 15c. Agents wanted; sell hundreds daily. Mailed postpaid on receipt of price.

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Package makes 5 gallons. Delicious, sparkling and appetizing. Sold by all dealers. A beautiful Picture Book and Cards sent free to any one sending their address to The C. E. HIRES CO., Phila.

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Mrs. Alice Maple, Oregon, Mo., writes: "My weight was 320 pounds, now it is 195, a reduction of 125 lbs." For circulars address, with 6c., Dr. O. W. F. SNYDER, McVicker's Theatre, Chicago, Ill.

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