LOYAL HOMEWORKERS

C. C. SKETCHES.

ETHEL HARDY. NELLIE C. PETERSON.

Ethel Hardy, Rushbridge, Ind., daughter of John Hardy, Co. F, 105th Ind., was born Jan. 1, 1870. She has been a teacher since the age of 18, but is at present learning milliinery. She has been an interested Loyal Home Worker for three years, and would like to hear from members. Brown hair, blue eyes, fair complexion; fond of music and books.

Nellie C. Peterson is the only daughter of M. P. Peterson, Co. I, 8th Ill., also Co. B, 16th U. S., Nendesha, Kan., and has been a member of the C. C. since September, 1889. She was born May 25, 1874; has blue eyes, fair complexion, dark hair. She is truesoulme, and wishes success to THE NATIONAL TRIBUNE and its readers.

JUNE AND L. JESSIE ACHENBACH.

June and L. Jessie Achenbach, Beatrice, Neb., are twin daughters of L. Achenbach, 57th Ill. Cav., born Feb. 6, 1871; enlisting in the C. C., 1889. They are graduates of the High School and members of the M. E. Church. June is five feet four inches in hight, with brown hair and blue eyes; fond of music, books, and flowers. Jessie is a tall, slender blonde; fond of art, travel, and literature, and is Conductor in the W.R.C. Both will exchange postal autographs.

JAMES W. ESTEP. MARY ELLIOT.

James W. Estep, son of a 33d Ind., is 24 years of age, with black hair, blue eyes and dark complexion. Weight, 145 pounds; hight, five feet six inches. He is a farmer, residing at Mt. Meridian, Ind.

Mary Elliot, Greensburg, Ind., daughter of John P. Elliot, 7th Ind., has hazel eyes and dark hair. She is a C. C. Guard; fond of music, painting, and flowers, and would like to hear from loyal C. C.'s.

HAPPY HOUSEHOLD.

RIBBON TIDY.

HAPPY HOUSEHOLD: Here is a very pretty way to make a tidy. Get one and three-quarter yards of two-inch orange satin ribbon and one and a quarter yards of peacock blue. Cut in 12-inch lengths; there will be five of one and four of the other. Sew each piece together, to form a circle; turn in a quarter inch and gather twice, drawing the centers almost together. Sew tinsel cord over the gatherings; join the rosets on the back, alternating the colors. Wide lace is slightly frilled around the edges, and cord is woven between the rosets. Hope some will try this and report their success. Pro Patria—Edith M. Haines.

TWO EXCELLENT DISHES.

HAPPY HOUSEHOLD AND C. C.: Here are two excellent recipes, which I hope the C. C. girls will try: the "hogs," too, if they wish to try their skill in cooking.

LEMON SOUP.—Cook one cupful of rice in a covered dish to keep it white. When nearly done, add one cupful of cream, a pinch of salt, beaten whites of two eggs and one cupful of sugar. Flavor with lemon. Put in a glass dish and dot with jelly. Serve with cream and sugar.

Apple Custard.—Pare and grate two large tart apples, add four tablespoonfuls melted butter, eight of sugar, juice and grated rind of one lemon, yolks and whites of six eggs, beaten separately. Line a dish with puff paste, fill and bake like custard. Katie R. Glynn, your compliments on my cake recipe were highly appreciated.—Lulu M. Backman, Rossville, Ill.

BLACKBERRY JELLY.

HAPPY HOUSEHOLD: May I enter your charming circle a moment to give you a recipe for making a new kind of jelly? I have tried it with good success. Cook juicy blackberries five minutes, or until they are red. Strain through a jelly-bag and measure the juice; to every pint allow 12 ounces of granulated sugar. Boil until it will jelly when cool. Hope the C. C. sisters will try it and report. Pro Patria—Mrs. Mary Bickwell, Hannawa Falls, N. Y.

CONVERSATION CLUB.

Rules of the Club.—1. Write briefly. 2. Write only on one side of the paper. 3. Write to the point. 4. Write on one subject. 5. Write your best. 6. Send answers to all puzzles for use of Editor. Each week the names of those writing the best letters—style, composition, spelling, penmanship and general merit considered—will be named at the head of this column on the Honor Roll. First honor will include all of these requirements. Second honor will include a deficiency in some one point. No others will be named.

HONOR ROLL—BEST LETTERS.

First Honor—Roscoe L. Whitman, N. T. C. C. G., Oneonta, N. Y.

Second Honor—Thomas Martin, N. T. C. C. G., Clinton, Mass.

OLD ROLL CALL—NEW MEMBERS.

[The letters v.s. mean veteran's son, v.d. veteran's daughter and v.w. veteran's widow; members of associations will be marked S.V. and D.V.]

J. M. Bostman, Myers, Tenn.; Minnie Odenbaugh, Donley, Iowa; Isaac Hampton, v.s., National, Iowa; Ida M. and Sallie A. Dugger, loyal daughters of an ex-Confederate, Sugar Rock, Ark.; Jessie Harrison, Hattie Palmer and Eva Waters, St. Johns, Mich.; Mrs. D. D. Sweper, North Watson, Wis.

New members desiring correspondence: W. J. Riney, v.s., Levick's Mills, Mo.; Annie L. Keser and Flora Parks, Milford, Ill.; Anna J. Lesurson, Woodworth, Ill. Total, 12,407.

PLUS FOR A SACRED DAY.

DEAR GUARDS: What a great mistake is made in the annual observance of Memorial Day! In most places the exercises which the newspapers call appropriate for the occasion, are more fitting for a celebration of the anniversary of our National Independence, than a just tribute to the Nation's soldier dead. Bands of music are well enough if their music is selected with a little care, for the wholesale appearance of every noisy brass organization in a gorgeous street parade is turning the occasion into a day of rejoicing instead of a day of mourning. Bands play the latest comic ballads, organizations put on their most pompous attire, and the day is made one of celebration. Our fathers are, in great measure, to blame for all this. They have allowed the exercises of this day of mourning to be conducted by citizens who proved to stay at home, or who, when the great call for men came, were not old enough to smell powder. These "stay-at-homes" will ride a horse before a long procession of firemen, Odd Fellows, Red Men, etc., and will feel as proud of it as though they had fought with our fathers at the front. The day belongs to the Grand Army of the Republic and their descendants, and this wholesale display should be done away with. A military detachment, acting as an escort to the old soldiers and their descendants, is well enough and desirable. It is well enough, too, for the firemen and other organizations to visit and decorate the graves of their deceased comrades, but they are belonging on sacred soil when they utilize Memorial Day for parades and excursions. In my opinion the suitable recognition of the solemn event—is there anything solemn about it as it is now recognized?—is for the local G. A. R. Posts, the Sons of Veterans, the Daughters of Veterans, the W. R. C., and last, but not least, the C. C. Guards, to repair to the graves of the deceased heroes, escorted, if practicable, by a military detachment, and a band that can play appropriate music, and bedeck the graves with sacred flowers. The usual exercises at the cemetery are good. After these exercises are over, proceed to a church or hall and hear an address by some one who "was there," and can pay the loyal tributes that mean but an old soldier of the rebellion is capable of. Politicians work in their addresses for effect, and while they use grand and eloquent words, they, in a very large majority, don't know what they are talking about, more than what they have heard and read of the rebellion. After the addresses let the comrades gather in their Post rooms and devote the rest of the day to visiting. If some of the day is devoted to the home it will not be time thrown away. This appropriate observance of the solemn event, I believe, would receive the hearty commendation of every loyal-hearted citizen. What are the opinions of my brothers and sisters on this important subject? Loyalty.—Roscoe L. Whitman, Commander New York Division C. C. Guards, Oneonta, N. Y.

OUR FLAG.

A Nation born, Faith did not lag,
But, together with Hope and Charity,
Said "We will make a bonny flag
For this free land, America."

Faith for her color brought the red,
An emblem of the sun's bright rays,
And by it made men look ahead
To fairer, brighter, better days.

Love said, "I'll teach a right,
And that this lesson all may know,
I'll bring a stripe of purest white,
Love's offering I will thus bestow."

Hope said, "I'll teach a lesson true,
By pointing to the sky above;
In doing this I'll give the blue,
And thus blend hope with faith and love.

But hark! A sound comes to the ear,
It comes from yon high mountain-crag,
The eagle bold, with moont-coat,
Screams, "I will help to make the flag."

Then our Nation's bird from his eyrie high
Flew to the starry realm above,
And plucked the stars. With a glad cry
He placed them on the flag we love.

And still the work goes heavily on,
Year after year new stars are given,
And by him they are placed upon
The glorious flag as gifts from Heaven.

Shall we not love this flag of light,
Emblem of the Heavens above;
Even with our blood keep each star bright,
And thus portray our faith, hope, love?
—A. R. Brookins, Jackson, O.

CLUB WHISPERS.

I want to thank you all for your kindness to me. I am not making a collection of postal autographs, but will send mine to any one caring enough for it to send a blank card. I am so anxious to get orders for fancy work.—Mabel A. Woolsey, 800 Exchange street, Akron, O.

If any one sending for curios has not received them, it is because the full address was not given. One lady sent for sea mosses and forgot to give her name. In about a month I received another letter saying she was going to write to THE TRIBUNE and expose me as a fraud. I re-opened the handwriting and found it identical, and saw she has made a mistake. I sent her the moss and the two letters, so that she might see that she alone was to blame. Let us all remember, we, as a band, are kindly disposed to all, and if misunderstandings occur we can easily right them without any naked words. Can any one give me the words to the song, "The Watcher"?—Mrs. F. A. Warner, St. Nicholas, Fla.

How many live in the country? I do, and think the only ideal, unalloyed happiness to be found on earth is on the farm in the realms of childhood. Country life is beautiful, romantic, and ennobling. It calls one forth into Nature's own precincts, and bids him hold communion with her, and leaves his mind free to develop amid the most elevating influences.—Lydia M. Ross, Monitean, Pa.

Lizzie's rhymes to her C. C. beaus are bright and cleverly written, and have a charming humor. We have no disturbing fears that the efforts of our sister to get a beau will fall to pieces. A great deal of surprise is expressed that more of the C. C. haven't been aspirants for the right sort of a beau to marry.—Frank B. Carey, Easton, Pa.

Michigan has lost another loyal and earnest worker, and sincerely mourns her loss. Rose Drake Ovid departed this life the 8th of this month. Her sufferings were great, but borne with cheerfulness and patience. It would be a great comfort to the aged parents to hear from those whom Rose loved, as she did all of the Guards.—Alice Milliken, St. Johns, Mich.

John Pinnley, Wallingford, Pa., is slowly passing away to that better home above. I think we can all help to cheer his remaining days by sending him a letter or postal as a token of our remembrance.—Lizzie Worrell, Wallingford, Pa.

I want to introduce my newly-married husband, Jas. W. Hartman, and hope the C. C. will give him a royal welcome.—Mrs. J. W. Hartman, Myers, Tenn.

N. T. C. C. GUARDS.

A C. C. GUARD'S VISIT.

In response to a kind invitation, I alighted at Natick, Mass., Memorial Day, May 30, 1891, and being received by my genial hostess and popular Guard, Emma S. Perkins, I was conducted to her home, where she relieved me of my "extras," and returning to the main street we were quite on time to view the Memorial parade, which was indeed a credit to the town of Natick.

Other Guards were expected, so we returned to the depot, where we found Brother Sabin in waiting, but no arrivals. Taken in charge by Brother Sabin, I visited the Cemetery, where we witnessed the exercises and decoration of graves. It was a pleasant surprise to meet Miss Stevens, of Natick, there, and with her company we returned to town, eventually meeting our hostess, Emma S., and two arrivals—Miss Smith, of Mattapan, and Miss Briggs, of Canton Junction. We shortly arrived at the home of our hostess, to partake of a midday meal at the "Annex," after which we adjourned to Emma's C. C. apartment to view her collection and C. C. corner. And such a collection! In perfect harmony with beauty and novel genius. There are mementoes and curiosities, together with an exhibition of her own original ideas. A valuable collection, that she may well be proud of, as it must have cost her no little time and expense.

We were obliged to leave this C. C. paradise, to fulfill the acceptance of an invitation tendered by Miss Stevens to visit her home and see her sister May, who unfortunately was unable to be with us on account of quite a severe illness. We dared to risk the contagious disease, and Miss May was indeed pleased to greet us. Mr. and Mrs. Stevens joined us in a chat, and their hospitality was crowned by an evening tea, including the "breaking of hearts," by a "cruel youth," after which we returned to the station to diminish our party by one in the person of Miss Briggs, who was obliged to return to Boston.

The remaining members enjoyed a stroll until the writer's hour of departure was fast drawing to a close, and finally, at the station, he grasped the hands of those that remained and said good-by, highly pleased with his visit to Natick, which shall not be soon forgotten. The sequel to this visit resulted in the discovery of two artificial hearts, whole and entire, in remembrance with somebody's desire.—Thos. J. Martin, Clinton, Mass.

NEW HAMPSHIRE C. C. PLEASURES.

DEAR C. C. FRIENDS: We in New Hampshire haven't been making much noise lately. You know that "still waters run deep." But I want the brothers and sisters to know that we are alive and working hard for our glorious organization. Sister Helen and I have recently had the pleasure of entertaining Division Commander R. F. Emmerson, of East Rochester, and Adj't C. Fannie Evans, of Manchester. The first afternoon, after looking over autographs and photographs, we spent at Sulphur Spring, a quiet and beautiful spot in the woods back of our house.

Arrangements had been made for a little Reunion, which we dignified by the appellation of "committee meeting," to be held at my house that same evening. Those present were Addie Berry and her father and mother, Ida Clements and F. G. Johnson. Our meeting, as the name suggests, was devoted strictly to business, making plans for our first Reunion at Lake Massabesic, etc. Our members are few, but we are enthusiastic; and right here let me warn you Guards in other States who are aspiring to the honor of the Banner Division, that you must look to your laurels, now that the old Granite State has come into line.

The next afternoon Brother Johnson met with us again, and notwithstanding the heat and dust we all walked to Addie Berry's home, a distance of two miles, where we spent a very pleasant afternoon in conversation and singing; Ida Clements presiding at the organ.

Soon after tea Ida bade us good-night, and about that time Brother Emerson disappeared, and we saw nothing more of him until late in the evening, and we had begun to think that we should have to return home without him, when hark! a sound of a voice in song reached our ears; it came nearer and nearer, and at last we could see the singer, who was none other than our lost brother tripping lightly across the field through the daisies from Ida's home; had been there "talking war with Ida's father."

We soon parted with our friends, wishing, in the words of Scott:

"To all and each a fair good night,
And rosy dreams and slumbers light."

But all good times come to an end. The next morning Fannie and Brother Emerson went to their separate homes. I think these meetings will occur often, for it certainly puts more life into us, and we are better able to work together in harmony.

Arouse, O ye C. C.'s, all over the State, and put forth your energies for the advancement of this grand work, and in looking in mind our subject—Progress, Revolution. Let us be not be drones, but real live workers. Pro Patria—Annie M. Mayo, Quartermaster, New Hampshire Division.

THE AMERICAN CADETS.

FRIENDS OF THE C. C.: The American Cadets are a military organization composed of young men between the ages of 14 and 21 years, and its objects are to give its members a military education without the expense of attending a military school; also to promote a fraternal unity among its members. We desire to form a company in every city and town in the United States. Every young man who is a member of the N. T. C. C. or N. T. C. C. Guards, who will write to us and inclose a two-cent stamp, we will commission a Captain. Write to Will H. Van Doran, Adjutant-General American Cadets, Elkhart, Ind.

OUR VISITA FRIENDS.

DEAR C. C. FRIENDS: I have heard from so many of you, personally, since I last wrote to THE TRIBUNE, that it seems like writing to "sure enough" friends, as our Indian girls here would say. I want to thank you all who sent papers for our Sabbath schools, and other reading matter, and assure you that, although we cannot personally acknowledge all that was sent, yet it was nevertheless very much appreciated. We shall be quite nicely supplied now for some time.

I want to ask pardon of those whose postal autographs I did not acknowledge by exchanging, but I must beg to be excused, much as I should like to please the dear C. C. When I tell you that, in mission work like ours, expenses are constantly going on, whether there is any income or not, you will better understand why I have seemingly neglected many to whom, really, I should have been pleased to write. And right here, if our kind Editor will permit, may I not offer a suggestion to our noble C. C. which may be helpful to many? When writing letters of inquiry, or to those whom you know to have many chance correspondents, please inclose a stamp, whether writing to me or any one similarly situated, and you will find it will spare unnecessary neglect of your letters, as well as being a help to those to whom you write.

One more thought and I will step out. How many of our C. C., who are in favor of every good work, would like to join in filling one of their number for mission work? I know of a young lady who would gladly give up her life to this work if she were better prepared for it. A year or two in a training-school would be a great help. Will the C. C. not respond through the dear old TRIBUNE, and let us all hear what you think of the matter? Yours, Pro Patria—Carrie A. King, Visita, Indian Territory.

TRIBUNE EXCHANGE—WANTED.

[THE NATIONAL TRIBUNE Exchange will be devoted solely to the exchange of souvenirs. Any thing pertaining to business must be sent to the advertising department.]

To Exchange: Prize for prettiest friendship ribbon by Aug. 1.—Lucie I. Best, Stoneham, Mass. Fairy photographs and autographs.—Lena R. Humor, Hull's Cove, Me. Prize for best collection of poems for G.A.R. gatherings.—Nettie M. Ford, Barton Landing, Vt. Cabinet photograph for best collection of curios.—Lulu M. Backman, Rossville, Ill. Prize for first and second best autographs; also photographs.—D. E. Hollenbaugh, Shelby, O. Prize for prettiest friendship ribbon and postal autograph.—Nettie J. Bapp, Dell Rapids, S. D. Hand-painted velvet for first and thirteenth piece friendship ribbon, with name and State worked on it.—Edith M. Haines, East St. Louis, Ill. One hundred cancelled stamps for Confederate bill; also, prize for curiosities.—Mildred Baldwin, Fredericktown, O. Ladies' Home Journals for reading matter.—Mary E. Kline, Salem, Kan. Autographs for Memorial declamations.—John S. Kirtland, Enterprise, Ind. Photographs.—H. R. Clodus, McPherson, Kan. Cornet for guitar.—C. H. Terrell, Eustis, Fla. Prize for prettiest postal autograph.—Grace E. Blair, Birmingham, O. Friendship ribbon; also, prize for best autograph.—Clyde L. Lewis, Georgetown, O. Stamp photographs.—J. O. Harpster, Port Matilda, Pa. Pen drawing for first French or Italian stamp.—H. A. Tyler, Simpson, Minn. Knobel's Parlor Album of Instrumental Music for White's Instructor.—Maggie Mason, Pollock, Minn. Handkerchief for best autograph from C. C. sister and necktie to C. C. brother.—Meda Plympton, West Decatur, Pa. Reading matter.—Nettie M. Ford, Barton Landing, Vt. French coin for foreign coin.—Herbert Burton, Carl Junction, Mo. Quotation cards and autographs, with those whose pictures have been in Gallery.—Carrie E. Nixon, Waterford, O.

Postal Autographs: Sarah Null, v.d., Maryville, Mo.; Charles E. Grieves, Ionia, Mich.; Alma Mahlum, Genie Bemis, Estherville, Iowa; George A. Gallup, Galva, Kan.; Mrs. Nellie Schemerhorn, Nellie Smith, L. O. Maxwell, Charles Jeager, Canton, Kan.; Lizzie P. Campbell, Edith E. Wakefield, Hull's Cove, Me.; J. G. Harvey, Urich, Mich.; Rue E. Bridgeus, Box 55, Beech Creek, Pa.; Belle McCoy, Earl M. Garvin, New Athens, O.; Mary E. Kline, Salem, Kan.; Ella Feils, 47 Maple Ave., Carbondale, Pa.; Addie M. Faulkender, Whiting, Kan.; Lena R. Hamor, Hull's Cove, Me.; W. H. Thomas, Seymour, Mo.; Della Norris, Parallel, Kan.; D. W. Phelps, Box 875 Norwich, N. Y.; Grace Duvall, Preston, Pa.; Roscoe C. Clark, Mount Morris, Ill.; Frank A. Savery, Proctor, Vt.; Arthur J. Kelly, First Sergeant, Camp 72, S. of V., Bushy, Va.; T. A. Miller, Sheldon, Mo.; also letters from C. C. girls who escaped the Johnstown flood.

CURIOUS CORNER.

[Answers to questions will not be published within two or three weeks after questions appear. So all will have a chance to send replies and receive honorable mention with the number of answers.]

The battle of Chalons, A. D. 451, in which the Huns, under Attila, were defeated by the Romans and Visigoths, has been called "The Scourge of God."

Dr. Jenner discovered the prevention of smallpox by vaccination, May 14, 1796, for which he was at first discharged and denounced.

Whales are of the eighth order of animals, Marine Mammalia, animals which live in water and suckle their young.

The earth has 1,500,000,000 inhabitants, 3,064 languages or dialects, and 1,000 religions.

1. What King avenged his enemies by reversing the shoes on his horse's feet?—John S. Kirkland.

2. When was an English King last seen in battle, and where?—Lulu M. Backman.

3. For what was Peter Stuyvesant remarkable?—Frank G. Martin.

4. When was Joseph Warren born, and how and where did he die?—James E. Alger.

BIBLE BRIGADE.

King Zedekiah, captured by Nebuchadnezzar, had his sons killed before him, and his own eyes put out, and was then dragged, with his people, the Israelites, into Babylonish captivity.

Asaph, whose name is affixed to Psalms 50, 73 and 83, was a celebrated singer in King David's time. See 1 Chron., 1:25.

Agrippa, before whom Paul was arraigned, listening to Paul's impassioned plea, said: "Almost thou persuadest me to be a Christian."

1. Why was Solomon given great wisdom?—Maude Hackell.

2. Where is the Nineteenth Century woman described in the Bible?—James Anderson.

BRAIN RACKERS.

[TO CONTRIBUTORS: In sending answers name No. of THE NATIONAL TRIBUNE in which the puzzle is found. Answers of puzzles may be forwarded within a week after receiving this TRIBUNE. Do not make numerical enigmas of your own name. Answers most accompany all puzzles forwarded.]

ANSWERS TO PUZZLES IN TRIBUNE JUNE 11.

Famous Inventor—Eli Whitney.
Battle of the Revolution—Bunker Hill.

SHAKSPERE PUZZLE.

When Shall we Three Meet Again.—*Macbeth.*

1. What fool hath added water to the sea.
2. How full of briars is this working-day world.
3. Et tu, Brute! Then fall Cesar.
4. None can be called deformed but the unkind.
5. Smooth runs the water where the brook is deep.
6. How hard it is to hide the sparks of nature.
7. A rose by any other name would smell as sweet.
8. Light boats sail swift, though greater hulks draw deep.
9. Lend less than thou owest.
10. What fools these mortals be.
11. Every time serves for the matter that is then born in 't.
12. To thine own self be true.
13. Had all his hairs been lives, my great revenge had stomach for them all.
14. Rights by rights founder, strengths by strengths do fail.
15. Everyone can master a grief but he that has it.
16. Hath hath bubbles as the water has.
17. Mine honor is my life.
18. Ere I learn love, I'll practice to obey.
19. Every man that dies ill, the ill is upon his own head.
20. Though 's the slave of life, and Life, Time's fool.
21. A horse! a horse! my kingdom for a horse!
22. Grief is proud, and makes his owner stoop.
23. Ay, but to die, to go we know not where.
24. I have touch'd the highest point of all my greatness.
25. Nature hath fram'd strange fellows in her time.

TANGLED QUOTATION.

Saeif dinsfre ser klel rue dwhsoa, ceignpk lceso
ot sa lwkl ew kwia ni hel nhusnes ubt vglanie su
lste tnsnal ew rseso nofl eih dsaca.—L. Alice Williston.

TANGLE.

Uret phussaph fi odoterslnu
Seontesl nsale ni goind oifgo.
—Elma Armstrong.

POLITICIAN'S MOTTO.

I am composed of 27 letters.
My 12, 8, 10, 3, 19, a prominent General.
27, 23, 2, 7, 15, to disfigure.
1, 16, 24, 9, 20, a part of the head.
8, 2, 17, 18, 24, a river in Africa.
12, 5, 26, 9, a girdle.
19, 4, 11, 25, 6, 21, to prosper.
22, 10, 15, 6, 5 is a verb.
—J. C. Schotrompf, Seward, Okla.

WHAT THE SOLDIERS SHOULD HAVE.

There are many good 4, 8, 6, 14, 16, 13, 7 why they should have it, as was it not these same old soldiers who during the years of the war joined the 11, 4, 16, 3, 5, 14, 7, 1, 16, 2, and marched to the front, there to do battle to protect our homes? In many foul 11, 5, 2, 7 they as 11, 4, 1, 7, 9, 17, 5, 4, 14 suffered 11, 6, 15, 17, until with some 4, 8, 6, 14, 16, 15, was dethroned. Most of them are now 11, 16, 9, 4, and need our 3, 6, 4, 12. Why should we not desire to at least see them free from want, for was it not through their great 14, 6, 3, 4, 1, 16, 15, 3, 5, 7, that we are now able to enjoy the blessings of 11, 8, 6, 3, 12?—T. W. Hays.

A NATIONAL ANOMALY.

In the beautiful rain and the gentle breeze;
In the leaves of the oak and cedar trees;
In the country roads and city street;
In wild, pale violets, faint and sweet;
In the babbling brook and mossy ledge;
In the bending ferns and rustling sedge;
In warbling birds and sweet May flowers;
In leafy trees and April showers;
In the little sod shanty on the claim;
In dreams that will never come back again;
In pansies and tulips, with beauties untold;
In apple-tree blossoms and bright marigold;
In fleecy clouds that float on high;
In the heavenly bodies found in the sky;
In the memories of the past that never die.
My whole is a paper read by all
Who marched to the front at his country's call.
—Charles E. McVay.

THREE-CIRCLE PROBLEM.

A gentleman owns a circular farm, and if three circles of equal area, and as large as possible, be drawn within it, the curvilinear area, in center of farm, will be nine acres. What is the area of the farm? Photograph for every correct answer.—Edgar L. Stevens.

ALWAYS A MYSTERY.

I am composed of 10 letters.
My 8, 2, 10 is fear or veneration.
7, 2, 1, 6 is a beautiful fowl.
3, 4, 10, 6 is a sign.
7, 3, 9, 10 is a wise man.
In whole a matter you will see
To men the deepest mystery.
Will give a prize for first correct answer.—Frank G. Martin.

When Baby was sick, we gave her Castoria.
When she was a Child, she cried for Castoria.
When she became Miss, she clung to Castoria.
When she had Children, she gave them Castoria.

HOP-PLANT LOUSE.

What It Is, How It Lives and Propagates, and How to Kill It.

The Agricultural Department has issued the following timely bulletin, prepared by Prof. C. V. Riley, the eminent entomologist, on the Hop-Plant Louse:

LIFE HISTORY.

Wherever it occurs, whether in England or on the continent of Europe, in New York, Wisconsin, or on the Pacific Coast, the hop-plant louse has substantially the same life-round.

Fig. 1.

FIG. 1. Winter-eggs of the Hop Plant-louse, and shriveled skin of the sexual female from which laid them—enlarged.

The eggs are laid in the Fall on different varieties and species of the plum, both wild and cultivated. They are small, glossy, black, ovoid, and are attached to the terminal twigs, especially in the more or less protected crevices around the buds. (Fig. 1.) From this egg there hatches in the Spring, about the time the plum buds begin to burst, a stout female plant-louse, known as the stem-mother, which differs from the Summer individuals by having shorter legs and shorter honey-tubes (Fig. 2). She gives birth, without the intervention of the male, to living young, and this method of propagation continues till the last generation of the season. The second generation grows to full size and gives birth to a third, which becomes winged (Fig. 3), and develops after the hops have made considerable growth in the yards. The winged lice then fly from the plums to the hops, deserting the plum trees entirely and settling upon the leaves of the hops, where they begin giving birth to another generation of wingless individuals.

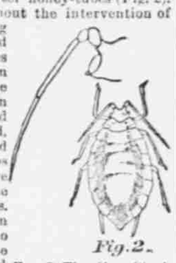

Fig. 2.

FIG. 2. The Hop Plant louse, stem-mother with enlarged antenna above—enlarged.

These multiply with astonishing rapidity* for from five to 12 generations, carrying us in point of time to the hop-picking season. There

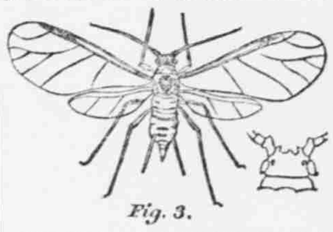

Fig. 3.

FIG. 3. The Hop Plant-louse, third generation on plum—the generation which flies to the hop—enlarged; head below at right—still more enlarged.

then develops a generation of winged females which fly back to the plum tree and give birth to the true sexual females (Fig. 4), which never acquire wings and never leave the plum tree. By the time this generation has matured, which involves but a few days, varying according to the temperature, belated winged individuals, which are the true males (Fig. 5), fly in from the hop fields. These fertilize the wingless true females upon the plum leaves and these soon thereafter lay the Winter-eggs. Thus there is but one generation of sexed individuals produced, and this at the close of the life-round—the females wingless on plum trees; the males winged on hops. All intervening generations are composed of virgin females only (parthenogenetic).

Fig. 4.

FIG. 4. The Hop Plant-louse, true, sexual female—enlarged.

This is the invariable round of the insect's life.

REMEDIES.

From the life history just given three important facts are obtained: (1) It will pay to make a preventive application of some one of the mixtures mentioned further on, with apparatus there described, to all plum trees in the neighborhood of hop yards, either (a) in the Spring before the appearance of the first winged generation and its consequent migration to hop, or (b) in the Fall after hop-picking and after the lice have once more returned to the plum and are making their preparations for the laying of Winter eggs. The latter time will, perhaps, be preferable, for the reason that in the Fall the plum trees will be less susceptible to the action of the washes, and a stronger solution can be applied without damage to the trees. (2) All wild plum trees in the woods through a hop-growing country should be destroyed. (3) The hop vines should be either burned or thoroughly drenched with kerosene emulsion as soon after the crop is harvested as possible with a view of killing the males, and thus prevening the impregnation of the females. If these measures are carefully followed, comparative exemption from lice may confidently be expected.

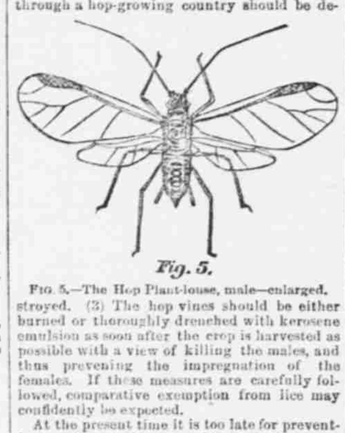

Fig. 5.

FIG. 5.—The Hop Plant-louse, male—enlarged.

At the present time it is too late for preventive work, and the only thing which can be done to lessen the damage to the crop is to destroy the lice upon the vines by spraying with an insecticide mixture. Such spraying can, with care, be made quite effective, and the individual hop-grower will have the satisfaction of knowing that whatever work he does upon his own yard will not be thwarted by the carelessness of neighbors, as during the Summer the lice cannot migrate except by crawling from one yard to another.

SUBSTANCES TO BE USED.

Of all the different substances experimented with in 1888 none gave more satisfaction than properly-prepared kerosene emulsions and fish-oil soaps.

FORMULA FOR KEROSENE EMULSION.

Cheap kerosene	pints...8
Water	pints...4
Soap	pound...½

Dissolve the soap in the water and add (boiling hot) to the kerosene. Churn the mixture by means of a force pump and spray nozzle for five or 10 minutes. The emulsion, if perfect, forms a cream, which thickens upon cooling, and should adhere without oiliness to the surface of glass. Dilute one part of the emulsion with 25 parts of water.

A common grade of kerosene, which is good enough for this work, can be bought in most localities at eight cents per gallon by the barrel, and the soap used can be made for one cent a pound. This would make the batch given above cost eight and a half cents, and diluted with 25 gallons of water to one of the emulsion would make 38½ gallons of wash. At this rate 100 gallons will cost 20 cents.

FORMULA FOR FISH-OIL SOAP.

Hirsch's Crystal Potash Lye	pound...1
Fish oil	pints...3
Soft water	gallons...2

The lye is dissolved in the water, and when brought to the boiling point the oil is added. The batch should be cooked about two hours. When done it should be filled up to make up for the evaporation by boiling, and there will be about 25 pounds as a result of the formula. When cold it can be cut and handled in cakes.

The fish oil will cost about 35 cents per gallon in New York City, the lye nine cents per pound. This batch of 25 pounds thus costs a little under one cent per pound. A strong suds made at the rate of one pound of this soap to eight gallons of water will be found a uniformly safe and satisfactory wash to use, killing the lice and not harming the vines. After standing three days, however, the suds will lose its efficacy.

SPRAYING APPARATUS.

In a large hop yard it will be necessary to have a pump which must be drawn by horse-power. Such an apparatus we have shown upon Plate 1, taken from the annual report of this Department for 1888. The important points are, a good double-acting single-cylinder force pump and a good spraying nozzle. Pumps of

APPARATUS FOR SPRAYING HOP YARDS.

this character can be purchased from the Nixon Nozzle and Machine Co., Dayton, O. ($20), the Field Force Pump Co., Lockport, N. Y. ($12), the Gould Manufacturing Co., Seneca Falls, N. Y. ($14).

The best nozzles are the Cyclone or Riley nozzle, which can be bought from Thos. Somerville & Sons, Washington, D. C. (50 cents), or the Field Force Pump Co., Lockport, N. Y., and the Climax nozzle, which can be bought from the Nixon Nozzle and Machine Co., of Dayton ($1).

Wm. Stahl, Quincy, Ill., also manufactures an excellent spraying machine.

Proper pumps already mounted on tanks or barrels ready for use can be purchased from either the Field Force Pump Co. or the Gould Manufacturing Co.

Any hop-grower, however, can readily prepare the apparatus as shown on Plate 1, after the pump and nozzle have been purchased.

The bench to which the pump is fasted is made to fit the round of the barrel and hooks down to the sides and ends, as shown in the plate. The pump is bolted to this bench and then inserted through an opening in the barrel. It is not a matter of any importance how the barrel or trank is supported on the boat or sled, but a skid can easily be made consisting of 4 by 4 inch scanting two feet six inches long. The bottom pieces are placed 18 inches apart and the top pieces 13 inches apart and bolts are put through each corner. The top pieces should be rounded on the inner side to meet the rounded sides of the barrel. To the bottom of the pump cylinder a flexible hose is fitted of sufficient length to reach to the bottom of the tank. This supply pipe should always be covered with a strainer. The method of drawing the tank over the field by means of a flatboat is cheap and convenient. A barrel mounted upon runners can easily be drawn by one horse over cultivated ground. All tanks should be provided with a strainer through which the liquid is poured. This is of considerable importance and will help very much to prevent the clogging of the nozzles. The ordinary spraying pumps are fitted up with one-half to three-quarter-inch heavy hose; this, however, is too heavy, and a practicable length of it cannot be used. It is better to buy a good cloth insertion three-eighths or one-quarter inch rubber tubing, which will answer every purpose and will be light enough to be elevated on a pole (a bamboo fishing-rod will answer the purpose and will be the lightest substance which can be found), as shown in the plate.

To revert once more to the subject of nozzles, it is very important to spray the undersides of the leaves and the undersides of the lower leaves cannot well be reached by an end-discharge nozzle like the Climax. The Cyclone or Riley nozzle is a side-discharge nozzle, and by its use this kind of spraying can be readily done.

It will be somewhat expensive to construct an apparatus like the above, but it will last for a number of years if well made, and will be applicable to many other uses.

In small hop yards a knapsack pump will answer the purpose quite as well. Three very good and substantial ones are on the market, as follows: The Galloway Sprayer, manufactured by Albinson & Trusheim, 2026 Fourteenth street, Washington, D. C., for $14; the Knapsack manufactured by the Field Force Pump Co., of Lockport, N. Y., sells for the same price, and the Eureka, made by Adam Weaver, of Vineland, N. J., for $21.

* Each female is capable of producing on an average about 100 young, at the rate of three per day under favorable conditions. Each generation begins to breed about the eighth day after birth, so that the issue from a single individual runs up, in the course of a Summer, to trillions. The issue from a single stem-mother may thus, under favorable conditions, blight hundreds of acres in the course of two or three months.

SUNDAY MEDITATION.

Practical Duties Taught by a Study of the International Sunday-school Lesson Appointed for July 12, 1891. St. John, 1: 29-42.

[One reading these notes should first carefully study the paragraph from the Holy Scriptures as indicated above.]

SUBJECTS: I. CHRIST, THE LAMB OF GOD, BAPTIZED BY ST. JOHN. II. STS. JOHN, ANDREW AND PETER BECOME FOLLOWERS OF CHRIST.

I. CHRIST THE ATONER BAPTIZED.

1. *Data.*

The account is furnished by St. John the Evangelist, 1:29-34. As to the baptism, see St. Mt., 3:13-17; St. Mk., 1:9-11; St. Luke, 3:21, 22 and 23. "And Jusus himself began to be about 30 years of age."

2. *Time.*

We can put ourselves in March, A. D. 26. St. John baptized Christ about six months before this lesson. Christ was then 30 years old. He is now 30 and one-half, and St. John Baptist is 31 years old. In the interval Christ was tempted for 40 days. Probably the two had seen little of each other since the baptism. The events of this lesson happened the "next day" after the deputation sent to St. John Baptist had departed. (Verses 19-28.)

3. *Place.*

We remember Christ was baptized at Bethabara, on the east side of the Jordan, to wit, in Perea, about 20 miles northeast from Jerusalem. (St. John, 1:28.) The word Bethabara means the house (or place) of passage. It was probably at about the point where the children of Israel crossed the Jordan when entering the Promised Land—a fit place for baptism which marks the line of crossing from the uncovenanted to the covenanted state—the place where we cross over into a condition of acceptance with God—the passage way