

THE SANTA FE STRIKE

Officials and Operators Give Conflicting Reports.

GENERAL MANAGER MUDGE SANGUINE

Chairman Newman of the Telegraphers' Union Says the Strikers Are Gaining and Lines Will Be Completely Tied Up.

TOPEKA, Dec. 11.—The officials of the Santa Fe railroad say the strike of operators is practically over. The operators themselves continue in the belief that their case is a winning one and say the prospects look better now than they have been any time yet.

The men in the Santa Fe shops here went to work as usual yesterday. An order had been issued closing the shops as a result of the strike. The officials later decided it to be useless for the shops to be kept closed, as they say the strike will be of small proportions.

General Manager Mudge professes to be sanguine that the strike is at an end and talks as follows regarding the re-creation of the order for closing the shops:

"The strike amounts to so little and the situation is so favorable that to shut down the shops is not necessary. If the operators had succeeded in tying up the system and had prevented the operation of trains, we would have had nothing for our trains running very close to schedule and no practical interruption to our business, there will be the regular work to do and no reason why it should not be done."

"We have word that on the California lines the operators are back to work. On the Southern California and San Joaquin Valley there is none out. They went out when the order to strike was sent, but came back shortly afterward. They have no grievance and are under contract. On the Santa Fe Pacific there are about 50 operators out, according to our information. One hundred and twenty-three men went out on the Gulf line in the original strike, which was the whole number employed."

STRIKERS GAINING.

Chairman Newman Says the Entire Road Will Be Tied Up.

WICHITA, Kan., Dec. 11.—A. J. Newman, general chairman of the strike committee of the Telegraphers' union, declares that the men are gaining ground hourly and that the trainmen will probably join them, which will mean the tying up of the road.

He added that not a telegrapher was working on the Santa Fe's Pacific division and hardly a train moving.

All Atchison trains, he declared, would stop, and Santa Fe trains on the Gulf division would also cease moving.

Little Trouble in Southern California.
LOS ANGELES, Dec. 11.—From General Manager Nevins the following statement was obtained in regard to the strike situation on the Santa Fe: "The trouble on our Southern California division has never reached proportions to cause us inconvenience. In this city all vacancies have been filled. On the Valley road six men quit. Their places have all been filled or will be filled. On Superintendent Denver's division, from Seligman to Mojave, 14 men quit, and on Superintendent Hibbard's division, from Seligman to Albuquerque, there were four vacancies. Practically all these have been supplied, many of the old men having returned to work, and in other cases new men are being employed. We are handling our through telegraphic business from the coast to Chicago with no delay whatever, and all freight and passenger traffic is being handled without the slightest delay or interruption."

De Wet Cornered.

PRETORIA, Dec. 11.—The Boer commander, General Christian De Wet, is cornered between the Caledon and Orange rivers, on the borders of Basutoland. As the rivers are in flood it is considered that his capture is certain, even if he should manage to recross the Caledon. British columns have been sent to hold all the passes and roads to the north to prevent his escape. The military officers here are greatly pleased that the attempt of De Wet to enter Cape Colony with his commando has been frustrated.

Big Cycle Contest Begun.

NEW YORK, Dec. 10.—In Madison Square Garden a great international speed battle between cycling kings of two continents has been begun. At 5 minutes past 12 this morning 28 seasoned racing men who hold records or championships in a score of countries were started in a contest of swiftness and endurance that will continue ceaselessly today, tomorrow, Wednesday, Thursday and on to within two hours of another Sunday.

Americans Outbid English.

LONDON, Dec. 10.—The Daily Mail has received the following by mail from its Calcutta correspondent: "The port commissioners recently invited tenders for locomotives. The lowest English tender quoted £1,544 for each locomotive and wanted nine months to complete the order. The lowest American tender quoted £1,260 and asked for six months. The latter was accepted, subject to the approval of the government."

American Shipbuilding.

WASHINGTON, Dec. 10.—The vessels built in the United States and officially numbered from June 30, 1900, to Nov. 30, 1900, were 495, of 149,993 gross tons. The principal items of the total are seven steel steamships on the great lakes (34,833 gross tons) and four smaller steel steamships (8,456 gross tons), which could pass through the new Welland canal, and one steel schooner barge (2,790 tons).

Arrayed Against Europe.

BERLIN, Dec. 10.—The National Zeitung devotes its first page today to a carefully prepared editorial dealing with the United States as a world power. After pointing out the enormous progress economically and politically of America in the world's affairs the editorial declares that in both respects the United States is arrayed against Europe.

American Mail in Norway.

CHRISTIANIA, Dec. 11.—The Norwegian government has awarded the contract for steel rails for the state railway this year, 11,800 tons, to the Pennsylvania and the Maryland Steel companies. The contract last year was awarded to the United States and England, each taking half.

LARGE IMMIGRATION.

Over Half a Million Foreigners Came to Our Shores Last Year.

WASHINGTON, Dec. 8.—The annual report of the commissioner general of immigration shows that during the last fiscal year the total number of immigrants who arrived in this country was 448,572, of which 23,200 came through Canada. Of the whole number 304,148 were males and 144,424 females. This is a net increase over 1899 of 136,857. These figures, however, the commissioner general says, do not show the total number of alien arrivals, as 65,625 aliens came as alien passengers. They would have swelled the total immigration to 514,207 had they traveled in the steerage. The figures show that of the whole number of arrivals 424,700 came from European countries, 17,940 from Asia, 30 from Africa and 5,896 from all other places. Switzerland and Spain and the Spanish islands show a small decrease in immigration, while Austria-Hungary shows an increase of 83 per cent, the Russian empire and Finland 49 per cent increase, Italy 29 per cent increase and Japan 340 per cent increase. The total arrivals from Japan, however, amounted to only 9,791.

Of the 448,572 arrivals 54,624 were under 14 years of age, 370,382 were from 14 to 46 years and 23,566 were 45 and over. It appears that 93,576 could neither read nor write, and 2,007 could read, but not write. The total number exhibited to the inspectors in money the sum of \$6,657,530, 271,821 bringing each a sum less than \$30 and 54,288 having each a sum in excess of that amount. There were returned within one year after landing in this country 356, and relief in hospital was furnished during the year to 2,417.

RATHBONE'S EXPENSES.

Paid Coachman and Bought Shirts With Government Funds.

WASHINGTON, Dec. 8.—Senator Platt of Connecticut, chairman of the senate committee on relations with Cuba, has made public the statement prepared by the auditing division of the war department showing the expenditures made by E. G. Rathbone, late director of the department of posts for Cuba. The total disallowances for the 16 months were \$72,631.

The first disallowance was on account of an expenditure of \$850 for a duchess carriage, made on Feb. 28, 1899. After that time there were frequent disbursements for the director general's carriage service. March 20 he paid \$202 for a set of harness and carriage "auxiliaries"; April 7, \$12 for a jipigapa hat and for another hat for his coachman with rosettes, and on the same date \$306 for harness, etc. Rent for the coachman, stable, etc., seems to have been regularly paid out of the public funds at the rate of \$110 per month, and in one or two instances the holder's salary was thus supplied. All the coach furnishings were provided in this way. In May, 1899, a uniform costing \$40, a pair of boots costing \$15 and another hat costing \$9 were bought for the coachman. June 9 a rain coat costing \$26 was supplied to that individual. The coach later was supplied with rubber tires at an expense to the public of \$110. In addition, there were many miscellaneous charges for stable rent and for carriage and car hire.

Eagan Restored and Retired.

WASHINGTON, Dec. 7.—Brigadier General Charles F. Eagan, commissary general of subsistence, who has been under suspension since Feb. 9, 1899, by sentence of court martial for alleged intemperate and abusive language concerning Lieutenant General Miles in connection with the army beef investigation, has been restored to duty and immediately afterward was placed on the retired list of the army. The story is told in two special orders which were bulletined at the war department yesterday afternoon. They are issued by command of Lieutenant General Miles, commanding the army. The vacancy thus created will enable the president to carry out his purpose of appointing Colonel John F. Weston, assistant commissary general of subsistence, to be commissary general.

Received by the Sultan.

CONSTANTINOPLE, Dec. 11.—A dinner was given at the Yildiz palace last night in honor of the officers of the United States battleship Kentucky, now at Smyrna, previous to which the United States charge d'affaires, Mr. Lloyd C. Griscom, introduced the officers to the sultan. The grand vizier and other dignitaries were present at the dinner. Subsequently Mr. Griscom and Captain Colby M. Chester were received in private audience by the sultan, who afterward received the other officers and addressed to each of them a few gracious words.

Big Railway Contract.

ST. PAUL, Dec. 11.—In addition to the 44 passenger cars, two dining cars and two combination cars ordered last week the Northern Pacific has contracted for about \$900,000 worth of new motive power, which will be built at the Schenectady works. The order includes 50 engines, and the company has reserved the right to order 75 more locomotives at the same contract price if the condition of trade shall warrant the additional order. The entire cost of the new engines and cars will not be less than \$850,000 to \$900,000.

Enormous Postal Receipts.

WASHINGTON, Dec. 8.—The report of the third assistant postmaster general shows that the total receipts from all sources of postal revenue during the year amounted to \$102,354,579, while the expenditures reached \$107,740,267. The value of the total number of pieces of stamped paper issued to postmasters was \$97,687,771, a net increase over the issue of the previous year of \$7,536,111.

Suffered Eleven Years.

KINGSTON, N. Y., Dec. 8.—After living 11 years without eating solid food Charles, the 14-year-old son of Hiram Kather of West Woodstock, is dead. When 8 years old, he drank a solution of concentrated lye which destroyed his stomach. For 11 years he was able to take no nourishment except milk. The boy never grew any larger after the accident.

King Oscar Able to Be Out.

STOCKHOLM, Dec. 8.—King Oscar has so far recovered from his recent illness that he now drives about the city and has recently been purchasing Christmas presents. He looks vigorous.

Harvard Defeats Yale.

CAMBRIDGE, Mass., Dec. 8.—Harvard defeated Yale for the third consecutive time in the intercollegiate debate in Sanders' theater last night.

STALWARTS WIN

TWO VICTORIES.

Snyder, of Chester, and Marshall, of Allegheny, Will Preside Over Senate and House Respectively.

INSURGENTS GIVE UP THE FIGHT.

Malignant Work of the Philadelphia Newspaper Combine Cannot Destroy the Republican Organization of Pennsylvania For the Selfish Purposes of Ambitious but Reputable Politicians.

(Special Correspondence.)

Philadelphia, Dec. 11.—All doubts about the ability of the stalwart Republicans to organize both branches of the legislature have been removed, since more than a majority of the members in each chamber have gone on record over their own signatures for the candidates of the stalwarts for presiding officers of those bodies.

The insurgents have practically given up the fight against Senator W. P. Snyder, of Chester county, for president pro tem. of the state senate. It is intimated that in order to cover his retreat Senator William Flinn, the leader of the insurgents, will make the motion for the election of Dr. Snyder to succeed himself as presiding officer of the senate in the absence of the lieutenant governor. Flinn, at the close of the last session of the senate, when it became necessary to elect a presiding officer who would officiate during the recess, placed Dr. Snyder in nomination in the Republican caucus, and he received every vote, including those of the insurgents.

Now, since the three members of the state senate whom the insurgents put in the doubtful list—Senator Sproul of Delaware, Vaughan of Lackawanna and Muehlbrunner of Allegheny—have all publicly declared in favor of Dr. Snyder, Flinn, recognizing the handwriting on the wall, is about to get in line for Snyder and announce that the insurgents have nothing against him, and would like to see him elected.

LOOKING TO THE FUTURE.

The facts are that the insurgents found that some of their number who aspire to re-election did not propose to follow Flinn's original plan and vote for J. Henry Cochran, a Democrat, for president pro tem. of the senate. They are all human, and they all appreciate the fact that if they would sell out the Republican candidate for president of the senate in favor of a Democrat they could never hope for re-election in their respective districts. This would be the biggest card that their political opponents could play against them.

The settlement of the contest in the state senate came along about the same time that the insurgents and Democrats in the house discovered that it would be impossible for them to unite upon any candidate for speaker. Neither Guffey nor any one else could get all the Democratic members to agree upon an insurgent Republican for speaker, and neither Martin, Flinn nor Wanamaker could get all the so-called insurgents to vote for a Democrat for speaker against the stalwart Republican candidate. Several of the most prominent insurgents in the last legislature have come out openly in favor of the election of Representative W. T. Marshall, of Allegheny, for speaker of the house. Some of them are still opposed to the election of Col. Quay, but it is believed that they will not continue to oppose him when the time comes to ballot on the United States senatorship.

They do not propose to get left in the matter of the distribution of the patronage of the house of representatives, which will be allotted by the leaders of the Republican organization, nor do they wish to figure in unimportant places on the committee lists. They all feel that their futures depend upon their being in a position of influence and importance, and that they must not allow their personal animosities or the revengeful spirits of a few disgruntled leaders to take them outside of the Republican lines.

BLISS WITH THE REGULARS.

Representative Ward R. Bliss, of Delaware county, who was a conspicuous figure in the deadlock on the United States senatorship two years ago, has come to the front as one of the leaders in the cause of the regulars, and he is very active in the canvass in favor of the election of Representative Marshall for the speakership. He was regarded as the most alert and the brainiest of the insurgents in the last session. He acted as presiding officer of their meetings in the house and fought as well as he knew how against the re-election of Col. Quay. He went home, soured the sentiments of the Republicans of the district and conducted their campaign with vigor, without opposition from the regulars, and he is now on the firing line of the stalwarts, and will be with them when they win their victory at Harrisburg next month.

The insurgents are still bluffing in their newspaper war on Col. Quay. They are making all sorts of false charges about the use of money by the regulars, yet they do not seem to think of the fact that the people know that were it not for the little coterie of monied men who are keeping the insurgent machine well greased with fat contributions there would be no organizations of insurgents. Money has been the principal stock in trade of the insurgents since they started out, and they have spent hundreds of thousands of dollars in a desperate but fruitless campaign against the Beaver steaman. Their newspaper bureau is perhaps one of their strongest assets.

INSURGENT NEWSPAPER COMBINE

Some of the antics of the insurgent newspapers would be very amusing to a reader conversant with the true situation if their hypocrisy was not so transparent and contemptible. As only one instance, mark the publication of an alleged list of Quay, anti-Quay and doubtful members of both senate and house that appeared in a Philadelphia

evening paper unfriendly to Senator Quay one day last week.

In this alleged list, after grotesquely arranging Quay members in the anti-Quay list and vice versa, and classing in the doubtful list men who have never wavered in their allegiance to Senator Quay, and who have repeatedly showed their loyalty to him in the most trying times, they finally recapitulated them so as to give the senator 22 votes in the house, making a total of 118 votes, or nine short of the requisite number for election.

It is noticeable that the particular anti-Quay paper did not have the effrontery to claim that this was an estimate furnished by the friends of the distinguished senator.

The list is adroitly drawn with two or three well known anti-Quay men in the Quay column, and with this nucleus the insurgents afterward tear it in shreds. In other words, they use this particular paper to set up a ridiculous "straw man," no doubt manufactured to order by the political liars of their own original insurgent news bureau.

Having themselves brought forth this prodigy, watch how the bold and valiant papers carrying that "wonderful production" full page "ad." swoop down on their own creation like an eagle on its prey.

FIGHTING A STRAW MAN.

They have charged these windmills of the Quixotic fancy so often and so disastrously in solid squadron that this time they change their tactics and give the place of honor (?) to the morning organ that for many years has been willing to publish anything, however false or untrue, that its hatred conceived would injure the one man in Pennsylvania it has hoped to crush and ruin. So it, on the following day, takes a "grand fall" out of the "straw man," and when it victoriously leaves the field it would seem that it was so thoroughly battered that it could not stand another shock from its own parents, especially.

But after they have all gone up against it, the "yellowest of the yellow" waits for a day, and then, "ye gods," how it does batter the wreck that is left of the child of its bosom.

"Infanticide is defined by law to be the murder of a newly born child," and if the insurgent press of this city are not guilty then such a crime was never committed—not only guilty in the general sense, but guilty of bringing it into the world with the express, premeditated and willful purpose of slaying it in cold blood. It, of course, deliberately lies when it says that the list published was Col. Quay's list. They know and every one knows that neither the senator nor any of his friends has ever published any list. They knew it was their very own. They also summarize or recapitulate their own falsehoods in this way:

"Quay's victory blazoned in his organs the morning after election Nov. 7, the 150, or 22 more than a majority; Dec. 6, 113, or 15 less than a majority. Decrease of Quay vote in one month, by Quay's own showing, 37."

And this is a specimen of the lying mendacity of organs subsidized by one advertisement. It is pitifully cheap lying, because when analyzed it is so transparent. Its hypocrisy, its cant, its building of an argument on premises wholly and willfully false, only leads their conclusion back into the same mire and filth of the rankest untruthfulness from which they derived their false premises.

Erie Canal Closed.

UTICA, N. Y., Dec. 10.—Water is being drawn from the Erie canal, and navigation for the season is at an end. It has been kept open nine days longer than the time originally decided on for closing in order to allow boats that were delayed by the break at New London to reach their destinations. The cost of repairing the break was about \$7,000.

American Steel in England.

LONDON, Dec. 11.—Three thousand tons of steel plates and angles for ship-building from the works of the Carnegie company reached the Clyde Sunday by the steamer Dunstan from Philadelphia Nov. 24. In spite of the railway freight to Philadelphia and the ocean freightage the price is still 10 shillings per ton below English figures.

Fatal Explosion in a Tunnel.

OGDEN, Utah, Dec. 11.—It is reported that an explosion of gas occurred in the big Union Pacific tunnel six miles north of Aspen, Wyo. Five men were killed and a number badly injured. Aspen tunnel is 6,700 feet long.

New York Markets.

FLOUR—State and western dull and weak, with buyers and sellers 5c. to 15c. apart on most of the trade brands; Minnesota patents, \$4.43; winter straight, \$3.46; winter extra, \$2.90; winter patents, \$3.90; 2.50.
WHEAT—B-cask and lower in line with bearish cables, liberal northwest receipts and moderate liquidation; January, 77 1/2 @ 77 3/4; March, 78 1/2 @ 79.
Rye—Dull state, \$6.50; c. i. f. New York, carlots; No. 2 western, 65 1/2c. f. o. b. ship.

CORN—Quiet and barely steady, reflecting lower cables and fine weather west; May, 43 1/2 @ 43 3/4.
CATS—Slow and easy; track, white, state, \$3.45; track, white, western, 2 1/2 @ 2.50.
HAY—Steady; mess, \$12.50; family, \$15.00; 1st, \$16.00.
LARD—Firm; prime western steam, 7 1/2 @ 7.75.
BUTTER—Firm; state dairy, 16 1/2 @ 17.00; creamery, 16 1/2 @ 16.75.
CHEESE—Firm; fancy, large, full made, 1 3/4c. f. m. made, fancy, small, 1 1/4c.
EGGS—Steady; state and Pennsylvania, 27 @ 28c.; western, loss of 2c.
SUGAR—Raw firm; fair refining, 3 1/2 @ 3.75; centrifugal, test, 4 1/2 @ 4.75; refined steady; crushed, 5c.; powdered, 6 1/2c.
TURPENTINE—Quiet at 41 1/2 @ 42c.
GOLDBER—Firm; New Orleans, \$2.40.
RICE—Steady; domestic, \$3.00 @ 3.25; Japan, \$2.75 @ 3.00.
TALLOW—Steady; city, 4 1/2c.; country, 4 1/4c.
HAY—Steady; shipping, 7 1/2 @ 8c.; good to choice, 5 1/2 @ 6c.

60 YEARS' EXPERIENCE

PATENTS

Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is new. We advise by return mail a statement of its patentability. We issue patents in all countries. Patents are secured for inventors. Our fee is reasonable. We make no charge for our services, unless we secure for you a patent. Write to the Scientific American, P.O. Box 518, New York.

TRADE MARKS DESIGNS
COPYRIGHTS &c.

A handsomely illustrated weekly, containing the latest news of the world. Terms, 50c. a year; four months, \$1. Sold by newsdealers.

MUNN & Co., 35 Broadway, New York

Branch Office, 55 F St., Washington, D. C.

Shopbell, Gamble & Co.,

313 Pine street,
WILLIAMSPORT, PA.,

We are ready in every department for the fall and winter buyers, of Dress Goods, Silks, Jackets, Tailor made Suits, Capes, Wrappers, Skirts, Petticoats, Waists Underware, Hosiery, Gloves, Notions, Laces, Furs, Domestic Flannels, Blankets, Comforts etc.

No more complete stock can be found. All the newest coloring and weaves are here. Everything up to date. Samples sent on application, but state just what is wanted.

SILKS.

We carry the largest line of silks for Dresses, Waists and Trimmings; all the latest novelties are here.

DRESS GOODS.

This collection covers every new coloring and weave; you will find the best assortment here. Our Black Dress goods are a leading feature and sure to please.

OUR CLOAK DEPARTMENT.

This department is specially attractive this season; all the newest styles are here for your picking. The length variety to suit your taste. Our Tailor made suits are all new up to date in style and materials (Prices Right, too). Fur Jackets, Capes, Scarfs and Collarets are here in endless variety. You will not go wrong here.

Every department filled with the latest. Try us.

Shopbell Gamble & Co.

America's Ten Greatest Dairying Authorities on Cream Separators.

The Wisconsin Agricultural Experiment Station.
MADISON, Wis., July 15, 1897.
In conducting our Dairy School, we have had occasion to use the various sizes of Improved U. S. Separators for the past four or five years, and have found them to be the most efficient and reliable. They are easily cleaned and kept in order, and can be depended upon for satisfactory work.
H. H. WING, Prof. Dairy Husbandry.

Cornell University Experiment Station.
ITHACA, N. Y., November 15, 1897.
We have used the U. S. Separators for the past four or five years, and have found them at all times efficient and reliable. They are easily cleaned and kept in order, and can be depended upon for satisfactory work.
H. H. WING, Prof. Dairy Husbandry.

Massachusetts Agricultural College.
AMHERST, MASS., July 7, 1897.
We regard the Improved United States Separator as one of the very best all round machines. In cleanliness of skimming it surpassed all the others. It compares favorably with the rest in capacity. Our man calls it the smoothest running machine we have, although it has been in use nearly three years—a good comment on its wearing qualities.
F. S. COOLEY, Prof. of Ag'ty.

Michigan Experiment Station.
AGRICULTURAL COLLEGE, MICH., Jan. 27, 1897.
Your No. 5 separator was received, set up, and has been operated daily since the 4th of January. Each of our dairy boys has now had a turn at it, setting it up, running it, washing it, and testing the skim-milk. They all like the machine, on account of its easy running and simplicity. We are running through milk 24 to 26 hours old, warmed to over 80 and usually about 60 degrees. The per cent of fat in the skim-milk, so far as reported, will not reach on the average a tenth of a per cent., and often is too small to read, in the skim-milk bottle. We are pleased with the machine in every possible way, as far as we have been able to observe it in a month's use.
CLINTON D. SMITH, Director Michigan Experiment Station.

1898 Record Equally as Good.
AGRICULTURAL COLLEGE, MICH., March 25, 1898.
I do not know that I have anything to add to what I wrote you in January, 1897, or any changes to make in the statements therein made (see above).
C. D. SMITH, Director.

Vermont Experiment Station.
UNIVERSITY OF VERMONT AND STATE AGRICULTURAL COLLEGE,
BURLINGTON, VT., June 25, 1897.
It has been the uniform custom of the officers of the Vermont Station to decline to issue letters of a testimonial nature. I may say, however, that I can and do refer parties inquiring regarding the merits of the Improved United States Separators to the records of the running of the same as published in our report for 1897.
(The tests referred to are as follows):

Aug. 14.....0.05	Aug. 19.....0.06
16.....0.05	21.....0.06
18.....0.05	23.....0.06

The results obtained by the use of these machines in our Dairy Schools of the past two years are full better, so far as the character of the skimming is concerned, than those given in the report.
JOSEPH L. HILLS (Director Vermont Experiment Station).

Iowa Experiment Station.
AMES, IOWA, Jan. 25, 1897.
Your two machines have been here in use for some time and are doing excellent work. We have succeeded in skimming over 2,600 pounds per hour, and as close as 0.07 of one per cent of fat left in skim-milk, with the larger machine. This we consider excellent work for the winter. The small machine also does good work.
G. L. MCKAY, State Dairy Instructor, Iowa Ag'l College.

Again in June; Iowa Experiment Station.
AMES, IOWA, June 25, 1897.
Your large size factory machine has been doing excellent work. We have used it six days per week for the past two months, and it skims to a trace right along, skimming 2,500 to 2,700 pounds per hour.
G. L. MCKAY, State Dairy Instructor.

Ohio State University.
COLUMBUS, OHIO, June 25, 1897.
Enclosed you will find statement of the several runs made with your various Separators.
Tests from the runs referred to show the following:
January 15.....0.02 February 2.....0.00 February 15.....0.02
18 tests show not over 0.05 of one per cent of fat.
Of course, you will understand that these runs were made by students who at the beginning had no knowledge of separator work. The same efficiency can hardly be expected under such circumstances as where operated by an expert.
THOMAS F. HUNT (Professor of Agriculture).

Idaho Experiment Station.
MOSCOW, IDAHO, March 25, 1897.
Our Dairy School has just closed, having had a very successful career. We have used daily one of your No. 5 Improved U. S. Separators. It has given perfect satisfaction, and is the favorite with all the boys.
CHAS. P. FOX, Professor of Agriculture.

Connecticut Experiment Station.
NEW HAVEN, CONN., AUG. 8, 1897.
The Improved U. S. Steam Turbine is running every day, and has been since April. It is an easy-running and thorough skimming machine.
In two recent tests, made on different days, running a triple over 700 lbs. of milk per hour, the skim-milk showed:
No. 1, 0.06 of 1 per cent butter fat.
No. 2, 0.07 " " " " "
This is as close as any one could ask for.
A. W. OGDEN, Chemist, Conn. Ag'l Experiment Station.

Missouri Experiment Station.
COLUMBIA, MO., March 25, 1898.
The Improved U. S. Hand Separator was used in our Dairy School during the winter term to the entire satisfaction of instructors and students, and did most excellent work.
J. H. WATERS, Dean and Director.

The Improved United States Separators are now not almost but altogether universal. The number in use is 125,000, more or less. Their sale is eleven to one of all imitating machines combined. The latest improvements carry them still further to the front. Send for new Dairy catalogue No. 201 or new Creamery catalogue No. 199.
VERMONT FARM MACHINE CO., Bellows Falls, Vt.