

COTTON EXPERIMENTS IN CALIFORNIA.

A DOGE of Venice, who, for some imputed offense, was compelled to go to Paris, and abase himself before Louis XIV, was asked, what in all that magnificent Court struck him with most wonder. "To find myself here," was the reply of the indignant Lescaro. With no less sincerity, though far different emotions, the writer can say, that nothing which California offers to the inspection of the stranger of the rare, the novel, and the beautiful, strikes him with so much wonder as to "find himself here," engaged in cotton-planting. Letters come to me daily from the Cotton States, in each of which the question is asked, "What induces you to plant cotton in California?" The same question has often been propounded to me by citizens of California. It seems strange that a planter from the most fertile region of the world-famed "cotton-belt" should select California as a locality in which to prosecute cotton-culture for profit.

Early in 1870 the writer sent to Mr. J. M. Strong, of Merced County, several varieties of cotton-seed for planting in California. That gentleman had pro-

duced two crops of cotton in the Mississippi River bottom, as manager for the writer, in the years 1868 and 1869. He reported the results of the planting from time to time, expressing the opinion that it would yield at least one and a half bales per acre. Planted on the 20th of June, the first open bolls, gathered the 5th of September, were sent to me at Memphis. While at the city of St. Louis, in November, I received an urgent request, by telegraph, to "come and see the crop." The visit thus prompted resulted in the personal inspection of an actual yield of *four bales per acre*, under the disadvantages of late planting and by no means perfect culture. In ten days after my arrival I had secured three hundred acres of land on the "Gwin Ranch," near Snelling, for cultivation in cotton the present year.

The "Gwin Ranch" lies on the Merced River, seven miles below Snelling. It is owned by the Buckley Brothers, who are extensively engaged in sheep-breeding. When, after repeated efforts, I had failed to secure land for planting, these gentlemen, hearing of my trouble, promptly tendered the number of acres

specified. A better selection could not have been made in the State. The soil is a bottomless alluvium, naturally irrigated by the river. It yielded the past year an average of sixty bushels of corn to the acre. The *rancho* embraces 960 acres. A contract was made with the proprietors for the cultivation of the land, planted in cotton under the direction of the writer, or his brother, J. M. Strong. This contract comprises breaking the land to the depth of eight inches, thoroughly pulverizing with the harrow, planting, cultivating twice with the cultivator, and hoeing twice, if necessary. The price paid for the entire work is \$10 per acre. A money-rent of \$5 per acre is paid.

By way of comparison, the following statement is extracted from the "Plantation Account Books" of the writer for 1869. One-half of his plantation, near Memphis, on the Mississippi River, was cultivated by Negroes hired at \$10 to \$15 per month, the other half on the "share-system:"

Aggregate labor account from Jan. 1st to Sept. 1st, 1869.....	\$1,220 10
Board of laborers for same time.....	661 00
Interest at 1 per cent. per month on cash value of team and tools.....	276 00
Cash value of corn and hay consumed....	548 40
Repairs and blacksmith-work.....	50 00
Half-salary of manager.....	500 00
Total for 200 acres.....	\$3,255 50
or \$16.27 $\frac{1}{4}$ per acre as the cost of cultivation.	

A difference of \$6.27 $\frac{1}{4}$ per acre in favor of California planting, or \$1,255.50 in the cost of cultivating the same number of acres. A further difference would be shown by an estimate of the damage to stock and tools during the year.

Lest it should be said that this is an exceptional contract, I state the terms of a second, entered into in Los Angeles County, for a similar purpose. The Los Angeles and San Bernardino Land Association have furnished to the writer the free use of six hundred acres of land on the "Stearns Rancho," for the

cultivation of cotton, sharing the expense of cultivating one hundred acres. The following contract has been made for the preparation and cultivation of one hundred and forty acres near Anaheim:

	<i>Per acre.</i>
Breaking new land, first time, eight inches deep.....	\$2 50
Breaking same land, second time, if necessary.....	2 00
Harrowing thoroughly.....	25
Marking off in checks for planting.....	50
Planting.....	50
Hoeing twice, if necessary.....	2 00
Cultivating twice with cultivator.....	80
Total cost of production per acre.....	\$8 55

The lands of the Los Angeles and San Bernardino Land Company selected for planting, and the lands on the "Gwin Ranch" near Snelling, will yield not less than one bale of five hundred pounds per acre. In the face of an actual yield of 5,860 pounds of seed, or 1,980 pounds of lint cotton, per acre, on the Merced, the past year, this can not be characterized as an excessive estimate. The Merced lands, it will be remembered, produced an average yield of sixty bushels of corn per acre. Lands adjacent to those selected for planting on the "Stearns Rancho" yielded 140 bushels of corn per acre the past year, *without cultivation*. Mr. Nathan Sears informed the writer that he gathered seven hundred measured bushels of corn from five measured acres, and that the corn was planted and allowed to mature without further molestation. It may be said that cotton is an experiment in this region. I have received the statement from numerous sources, that cotton of fine quality and large yield is annually grown for domestic consumption near Los Nietos and El Monte, without irrigation or cultivation. There is no perceptible difference in climate between the point selected for planting and the two localities named, while the soil of the former has the advantage of virgin fertility.

I have been offered all the labor I can use for picking at seventy-five cents per hundred pounds, or \$11.25 per bale. I make the following additional extract from my "Plantation Account Book" for 1869:

Total amount paid for picking 100 bales of cotton \$2,050 00
or \$20.50 per bale.

A difference in favor of the California crop of \$9.25 per bale. These comparisons are made with the crop of 1869, because the crop of 1870 throughout the entire South has been produced upon the share-system. Let us examine that system for one moment. The number of acres allotted to each "hand," or laborer, throughout the Cotton States, is ten, eight of which are devoted to cotton, and two to corn. Granted, that he cultivates the whole in cotton. Deducting the cost of labor and food, the expense of the planter is the same as in the case of hired hands; he furnishing, under this system, land, team, tools, and feed for team. Thus his expense for the production and harvesting of fifty acres—his share—would be \$1,874, or \$37.48 4-5 per acre, against \$36.77 1-5 per acre with hired labor, supposing production under the two systems to be equal, which is never the case. Comparing these several statements, we have the following results:

With wages at \$12.50 per month and board furnished to the laborer, and picking at prevailing rates, it costs the planter in the Cotton States to produce and harvest one acre of cotton, yielding half a bale, or 250 pounds of lint cotton..... \$36 77 1-5
Farming on the "share-system," it costs him to produce and harvest one acre of the same yield..... \$37 48 4-5
In California, it costs him to produce and harvest one acre of cotton, yielding one bale of 500 pounds lint cotton, paying \$1.25 per day for labor, \$12 per month for board of laborer, profit on the use of team and tools hired, and for picking at contract rates..... \$21 25

A difference to the California farmer—first, in expense, of \$16.23 per acre, and

\$15.52 per acre, respectively; and, second, in yield, of 250 pounds per acre of lint cotton, valued at fifteen cents per pound, of \$37.50 per acre more; or an aggregate difference of \$53.73 per acre in the one case, and \$53.02 in the other.

If it be asserted that this estimate is unfair, in that it assumes as the region of production the Merced and Santa Ana River bottoms, which may be of exceptional fertility, I can only reply, that I have taken the average yield of the Mississippi River bottoms as the basis for the Atlantic States, thus opposing alluvium to alluvium. If we take the average yield of the Cotton States, we should have—on the authority of the Bureau of Agriculture—as the average for the three years of 1868, 1869, and 1870, 196 $\frac{3}{4}$ pounds per acre—in the opinion of the writer, an excessive estimate.

Let us examine this question in the light of other authorities. In May, 1869, the "Southern Commercial Convention," composed in part of the leading planters and cotton factors of the Southern States, assembled in Memphis, Tennessee. In the published "Proceedings" of that Convention, page 153, will be found a "Memorial" addressed to the "Cotton Supply Association of Manchester, England, and the National Association of Cotton Manufacturers and Planters of the United States." On page 164, it is stated, that "*three bales to the hand is a high average.*" In a note on page 166, the statement is made, that "the average of the Liverpool Cotton Brokers' Association is adopted by the memorialists, viz.: 443 pounds per bale." Thus it was estimated by the Convention that 1,329 pounds of lint cotton per hand, or 132 9-10 pounds per acre, was "a high average yield" in the Cotton States. The estimate of the Bureau of Agriculture for 1868—the year preceding the assembling of the Convention—

is an average yield of 200 4-5 pounds per acre, or for every ten acres—the supposed average cultivated—2,008 pounds per hand.

Governor Alcorn, of Mississippi, extensively engaged in cotton-planting in the Mississippi River bottoms, delivered an address before the same Convention, in which he ably and elaborately reviewed the position of the Cotton States with reference to immediate and prospective production. On page 188 of the published "Proceedings," he says: "Our uplands will serve us in the battle of prices with averages of from two to five hundred pounds [of seed-cotton] per acre. If fought on these grounds, I need hardly tell you, with all I have said on the subject, that in my judgment, our cotton industry is destined to utter defeat. We must fall back—fall back, gentlemen, to a stronger position. On the rich prairies and in the valleys of the interior I would leave nothing undone that the individual or the state can accomplish, to fight this European combination; but the true position in which to receive the brunt of the struggle lies behind the high yields of the prolific flats of the Mississippi. The yields of fifteen hundred to three thousand pounds to the acre which these rich soils average, will enable us, in a few years, not only to fill all those market vacuums that tempt rivalry, but to make that rivalry forever after impossible, by breaking down the present prices, under cover of which they now seek to obtain a permanent footing." If we analyze the Governor's statement, we shall find that the estimated average of the uplands is 350 pounds of seed-cotton per acre, and it would be wholly unsafe to claim any thing above the lowest product stated by him for the Mississippi River bottoms, or fifteen hundred pounds of seed-cotton per acre. We have, then, assuming that three-fourths of the crops are annually produced on the uplands, and one-fourth

on the river-bottoms, 637.2 pounds of seed-cotton as the average yield of the Cotton States—equal to 182 pounds of lint cotton per acre, or an average product per hand of 1,820 pounds. In the opinion of the writer, based upon five years of close observation and practical experience in the Mississippi River bottoms, the average annual yield of that region does not exceed 250 pounds of lint cotton per acre. It certainly has not reached that figure annually for the past five years. I should say, then, that the estimate of the Memphis Convention is, in my judgment, the nearest to correctness of the three. Acting upon the results of my own experience, I have thought a difference of \$53 per acre, or \$10,600 in a crop of two hundred acres, sufficient inducement to plant in California.

It is a well-established fact, that the finest staple of Upland cotton is produced in those regions where there is scarcely any rain-fall during the growth of the plant. Lyman, in his work on "Cotton Culture," page 72, says: "On the Guadalupe (in Texas), it is remarkable how little rain gives a crop. I have seen six and seven hundred pounds of ginned cotton per acre produced, without a drop of rain on the plants after they were six inches high. The quality of the staple thus grown is superior to that of a wet season; but corn is an impossible crop under such circumstances."

A sample of the cotton produced in California in 1866 has been submitted to the Memphis Board of Brokers for classification, and that produced in 1870 was subjected to a rigid and careful analysis under the microscope in New Orleans. The crop of 1866 was pronounced by the Board of Brokers equal in other respects to our best Tennessee and North Mississippi Uplands, the staple a little finer and softer. Dr. Nagle's report on the product of 1870 was pub-

lished in the *San Francisco Evening Bulletin* of November 11th, 1870. Compared with the cotton products of the world it was pronounced superior to all but the Sea-Island.

A sample of Mr. Strong's crop, produced on the Merced the past year, has been forwarded to Liverpool by Messrs. Rodgers, Meyer & Co., of San Francisco, to be classified and valued. Another sample has been forwarded by the house of Hong Yune & Co. to their correspondents in Canton, China, for classification and valuation. Thus we shall know its value at an early day, in both the Asiatic and European markets.

Reverting to the statement of advantages, we find, as the result of economy in production and increase of yield, \$53 per acre, estimating the yield in California at one bale per acre. Adding the \$15 difference in price, the profit over that of the planter in the Cotton States is increased to \$68 per acre. This estimate of difference in profit holds good only upon the presumption that the crops produced are of the same grade. As we know that there are five different grades of cotton marketed in the Cotton States, in consequence of the effects of rain and frost; and as we also know that these causes do not operate to the damage of the crop produced in California, we may easily perceive that the profit here is still further increased by this radical difference in climate. The writer predicts, that the cotton of California will command a higher price in the Liverpool market than the best "Orleans Middlings." It will furnish the basis for a class of goods differing in quality from any now placed in the market. It is susceptible, from its fineness, of supplying the place of Sea-Island to a great extent, for spinning into threads, and for the manufacture of laces. Of the Medium Long Staple variety, it can be cleaned by the saw-gin without damage to the staple; and thus, at a price ap-

proximating Sea-Island, is a much more profitable crop.

If there were no home-market for it, the leading market of the world, Liverpool, is reached at a saving of \$2.50 per bale in freight, if shipped by steamer, over cotton shipped by steamer from New Orleans, and thirty cents per bale, if shipped by sail, over cotton shipped by like conveyance from New Orleans. The moment the cotton is placed on shipboard, the shipper can draw a sterling-bill against it with bills of lading attached, for three-fourths of the Liverpool market-price; and the difference in exchange between San Francisco and Liverpool will cover the costs of transportation and sale. He thus receives, in effect, the Liverpool market-price in San Francisco.

Recapitulating the advantages enumerated, we find the comparison between production in California and in the Cotton States to show the following results:

CALIFORNIA.	
Yield, one bale per acre, the crop of a single grade, worth at present prices in San Francisco.....	\$89 37
Deduct cost of production.....	\$10 00
Cost of harvesting.....	11 25
Ginning and baling.....	3 00
Freight.....	1 00
Cost of seed (Petit Gulf).....	5 00
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	30 25
Net profit to producer.....	\$59 12

MISSISSIPPI RIVER.	
Yield, one-half bale, 250 pounds, the crop divided into five grades, worth at present prices in New Orleans.....	\$35 50
Deduct cost of production, harvesting, and preparing for market on the "share-system"....	\$37 48 4-5
Freight to New Orleans, never less than.....	50
Charges incident to sale.....	2 00
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	\$39 98 4-5

A net loss to the planter of about \$9 per bale, aside from the damage to team, tools, etc. Reduce the yield to the average stated by the Bureau of Agriculture, and his loss increases in proportion to the reduction. Increase the estimate

of yield to the same as that produced by the California farmer, and there is still a broad margin of profit to the latter. A bale of cotton, of the average produced in the Cotton States, is worth to-day in New Orleans,

Say 500 pounds, at 14 1-5 cents.....	\$71 00
Cost of producing, harvesting, etc., on share-system	39 98 4-5
Net profit to planter per acre.....	\$31 01 1-5
Net profit to California planter per acre..	59 12
Difference in favor of California planter..	\$28 10 4-5

per acre, supposing the same yield, or, on two hundred acres, of \$5,622.

This comparison between the cost of production in California and the Atlantic States has been made at length, to convince the reader that we have nothing to fear from American competition in the markets of the world. Nor is there ground for apprehension from any other source. The low prices at which American cotton now goes into consumption, has, to use the language of Governor Alcorn, enabled them "not only to fill all those market vacuums that tempt rivalry, but to make that rivalry forever after impossible, by breaking down the present prices, under cover of which they now seek to obtain a permanent footing."

Such are the advantages presented by California to the planter from the Cotton States. Let us consider, briefly, the inducements it offers to the grain-farmer of California, to adopt it as a paying crop. The Report of the Surveyor-General of the State gives, as the average yield of wheat, seventeen and one-half bushels per acre, while that of the Bureau of Agriculture places it at sixteen. Adopting the home report as the correct one, and thus giving wheat the benefit of all that may be claimed for it, we will compare the value of cotton and wheat products. For general comprehension, it is better to limit the comparison to the production of one hand, or laborer:

WHEAT.	
Number of acres, 100; average yield, 17½ bushels; average product per hand, 1,750 bushels; average value per 100 pounds on farm, \$1.37½—total value	\$1,443 75

DEDUCT EXPENSES.	
Rent of land, \$3 per acre.....	\$300 00
Harvesting 100 acres, at \$1.50 per acre.....	150 00
Thrashing and putting in sacks, 10 cents per bushel.....	175 00
Forty-five days' labor putting in the crop, at \$1 per day.....	45 00
Forty-five days' board for laborer, at \$12 per month.....	18 00
Sacks for grain, at 6 cents per bushel	96 00
One hundred bushels of seed-wheat at \$1.37½ per 100 pounds.....	68 33
Feed of team employed	135 00
	972 33
Net profit per hand, or laborer.....	\$471 42

Three crops of cotton, grown by J. M. Strong on the Merced River, resulted in an average yield of 933½ pounds of lint cotton per acre, or nearly two bales of 500 pounds each. I think it fair to assume that a yield of one bale of 500 pounds' weight will result from planting on soil of average fertility, if properly prepared and cultivated. Basing an estimate on this yield, we have the following results:

Number of acres per hand, 20; average yield per acre, 1 bale of 500 pounds; average product per hand, 20 bales; value per bale on farm, \$75, or fifteen cents per pound—total value.....	\$1,500 00
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DEDUCT EXPENSES.	
Rent of land (same as wheat), \$3 per acre.....	\$60 00
Labor of preparing, planting, and cultivating.....	36 00
Board of laborer, at \$12 per month	14 00
Seed for planting, first crop (Petit Gulf), \$2.50 per bushel.....	50 00
Picking entire crop, at 75 cents per 100 pounds of seed-cotton	225 00
Ginning and baling, at \$3 per bale	60 00
Feed of team.....	18 00
	463 00
Net profit per hand, or laborer.....	\$1,037 00
Deduct profit per hand or laborer on wheat	471 42
Difference in favor of cotton.....	\$565 58

Net profit per acre on cotton on farm..	\$51 85
Net profit per acre on wheat on farm..	4 71 42-100
Difference per acre in favor of cotton..	\$47 13 58-100

It may be asserted, that the estimate placed on the value of wheat on the farm is too low. I have assumed the price stated as the average value throughout the State. The same is true of the value placed on cotton. If there is a margin between given localities and San Francisco, the difference in favor of cotton will be still further increased, as that staple gains decidedly in transportation. One hundred pounds of wheat are worth \$1.37½. One hundred pounds of cotton are worth \$15. The cost of transporting the respective crops is therefore as 10.9 to one. To illustrate more clearly: The cost of transporting the production of one laborer, of each crop, from Stockton to San Francisco, would be as follows:

52½ tons of wheat, valued at \$471.42 net, at \$1 per ton.....	\$52 50
5 tons of cotton, valued at \$1,037 net, at \$1 per ton.....	5 00
A difference in favor of cotton, in transportation, of.....	\$47 50

The same argument holds good with reference to exportation to distant markets. The Report of the Surveyor-General for 1868-69 states that 1,118,891 acres were devoted to the production of wheat, yielding 19,681,984 bushels. Let us suppose that one-half of this product was exported. It represented to the producer on the farm, as we have shown, a net profit of \$4.71 42-100 per acre, or for the whole crop \$2,637,226.08. If we further suppose that only a sufficient quantity of wheat for home consumption had been produced, and the surplus acreage devoted to cotton production for export, we should have, as the net profit on 559,445½ acres, \$30,033,475.92. If moved from the farm, the transportation added 10.9 times the cost to the same value of wheat that it did to cotton, and the same heavy expense if exported to foreign markets. Does it not clearly appear, then, that if we devoted our surplus acres to the production of cotton instead of wheat for export, we should

not only realize higher prices for our grain products, but that great Pactolus of the world's wealth, the Pacific Ocean, would waft to San Francisco the annual tribute from Europe of \$30,000,000 profits to our farmers, instead of \$2,600,000?

Suppose we should state to the miners of California that, on every acre of good land, there would be found, at a depth of eight inches below the surface, four twenty-dollar pieces and one ten-dollar piece of gold; that it would cost one twenty-dollar piece to get the five pieces; that in one year he could plow up ninety pieces, and after paying all the expenses attending it, have sixty pieces left. What would be the result? Should we not have every body looking for twenty-dollar pieces? This is the Cotton Question in a nutshell.

Gold and jewels, "the types of ignorance and barbaric pomp," are useless, compared with this last great material of national industry and commerce, of human comfort and support. Nothing on earth is so nourishing to trade, or so impulsive to human progress, as this precious product of our soil.

Paradoxical as it may sound, the agriculture of California is both her glory and her shame. Engrossed in the production of a single article for exportation, which has been in great demand, it has given us a prominence in that one branch of industry, conferred on us much influence in the Union and the Society of Nations, and greatly magnified our apparent wealth. But at the same time it has impoverished our soil, diminished our domestic enjoyments, narrowed our minds, and greatly retarded our progress in other fields of labor, whose culture is indispensable to the real independence, true wealth, and dignity of a State. The demand for wheat has enabled us to realize large pecuniary rewards for its production; but when we count what its production has cost, and will yet cost, we will find that the real balance in our

favor is not so great as the apparent; that if we have made large present profits, it has been at the hazard of large future losses; and that, like a neglected orphan heir, we are wasting our inheritance in riotous living and delusive speculations ere we have attained manhood.

Nature has prescribed limitations to the enjoyment of every earthly pleasure, and the exercise of every power of man. Excessive indulgence of the appetite is followed by satiety, disease, and death. Long-continued and inordinate application of the mind impairs its faculties, and sometimes produces fatuity and madness. The constant and changeless cultivation of any plant will exhaust the earth, till it ceases to give forth its increase. The history of grain-culture in California and the Eastern, and of cotton culture in the Southern, States, is a complete illustration of the folly, if not iniquity, of man's violation of this inexorable and immutable law of Nature. Desolation and depopulation mark the progress of the cultivation of single staple crops, as they did that of Attila, the Hun, of whose horse it was fabled, that the grass ceased to grow where he had trodden. Even now we can attest its truth in California, in the periodic ruin that attends the efforts of the farmer under careless and slovenly cultivation, and reliance upon a single staple crop.

If the planters of California would prevent the shameful decadence of agriculture, so palpable in the older States, they must banish the wild illusion, which holds them spell-bound to the changeless, artless, exhausting culture of grain crops. They must abandon a system which is at war with Nature and condemned by experience, and adopt such improvements in their modes of tillage, and such restoratives of their exhausted lands, as science may suggest, and skill may devise. They must learn the physical fact, that all Nature loves a change,

and diversify their field labor by the introduction of other plants.

Men are not more dissimilar in their forms and faces than in the character and powers of their minds; and the public policy which would encourage but one pursuit for all the people, is as irrational as that of Procrustes, who stretched the short and cut off the long, to make them fit the same bed.

All the intellect and all the energy of the community can not be elicited in a single field of exertion. Advancing civilization is ever multiplying the wants of society, and varying the demand for new comforts, new luxuries, and new pleasures; thereby stimulating all the powers of the human mind to their utmost tension. It is to the illimitable increase of human wants that we owe all the discoveries and inventions which have elevated nations and ameliorated the condition of mankind. The spirit of Progress and Reform is the mania of the age. Individuals, societies, nations—all torn loose from their moorings—are borne onward by its irresistible tide. It demolishes institutions, and defies the barriers of time. If we would not lag behind the age, or sink in the scale of States, we must offer rewards adequate to draw forth all the dormant faculties of our people. We must diversify our labor. We must encourage manufactures and commerce, as well as a greater variety of agricultural products, among our citizens. We must cease to depend upon others for those things which we can produce ourselves—on the manufacturers and ship-masters of other States and nations, to take our raw products from our own sea-ports, and bring them back to us at the enhanced value imparted by foreign labor and skill. We must develop the great and various bounties, which munificent Nature has provided. Blessed with a mild and genial climate, with alternate highland and lowland, mountain and plain, of fertile and various soils,

admirably adapted to the growth of grasses and grains, and the rearing of stock, why should we want for food? I write from the southern portion of the State: the home of the orange, the lemon, the walnut, the vine—of all the tropical and semi-tropical fruits. We can weave, from the products of our own soil, silks as gorgeous as are sent forth from the looms of Lyons, and as durable as those of China and Japan. In the midst of our plains may be woven fabrics that will rival the muslins of Decca, and the laces of Brussels. "The sweet rose of Pæstum" blooms perennially here. The fig of the Romans attains a perfection that would have been the envy of Virgil, and the despair of Horace. Gold glistens on the sides of our mountains, and sparkles in the sands of our rivers. In short, we are blessed beyond all the regions of the earth with the elements of prosperity and wealth, if we will but utilize and develop them.

In this money-loving age, when men would dam up the fountains of Helicon to turn a grist-mill, and banish all the roses from the vale of Cashmere to grow grain, it would perhaps be vain to expect any change of habit, or the adoption of any new pursuit, that did not promise quicker and greater profits than are now realized. I think, however, I have satisfactorily proved by "figures which do not lie," that the development of the cotton industry promises larger profits than can be realized from the production of grain. This is true of many others which must follow in its track. Grain is the dearest of all exportable products. Upon it no great industries can be founded, multiplying employment and concentrating capital in the State. It is labor in its rudest form, exported to buy labor in its most complicated and dearest. It is the virgin fertility of the soil, sent to distant markets, to bring back those things which lie around us in boundless profusion. It is a com-

modity produced everywhere, and hence it must compete with all the nations of the earth in their own markets, burdened with expensive transportation.

Gold and grain! They are the staple productions of California. Look around you and see what they have done for this State. Of the \$900,000,000 of the one which has been extracted from our mountains, and the vast productions of the other that have been harvested from our plains, what remains? The miner wanders about our villages, watching for the announcement of new discoveries, cursing the Chinaman who has extracted the cream of the old, and dispatched it to the "Celestial Kingdom." Do we find the grain-farmer surrounded with the pleasures and luxuries of life—those aids to contentment, which he might enjoy, if he would only shake off traditional habits of thought and action, and improve the ample means which he possesses? If he owns a hundred lowing kine, he has no pasture for his cow, or dairy for his milk and butter. Seeking his subsistence from the earth, he has no plat that deserves the name of garden. Often he does not even grow the character of grain that will feed his family. Holding in absolute fee thousands of acres of land, he neither builds nor plants for posterity. His dwelling is put up in haste, of the cheapest and most accessible materials, and without regard to taste or comfort. He plants no vineyard or orchard; no trees or flowers. Depending upon his mother Earth, he does nothing to improve her condition, but, with matricidal hand, robs her of her wealth, exhausts her energies, and finally destroys her vitality. He is a parasitical murderer, taking the life of the friend on whose bounty he feeds. He has no time to embellish his home, or add to the value of his "ranch;" no time to build houses or plant orchards, vineyards or hedges; to ditch, drain, or manure his land; to improve his stock

of hogs, sheep, or horned cattle ; to tend his garden, or graft his trees ; to indulge in any agricultural experiments, or embark in any enterprise, however cheap the hazard or promising the return. All his efforts are concentrated upon the production of his grain crop. His lands deteriorate under, and he is periodically ruined by, his artless culture ; and yet he struggles on without diversification or change.

What the production of cotton will accomplish has been already stated by the writer, in the following language :

“Now observe—first, that the cotton crop is produced and harvested with White labor, at the same rate of wages as is now paid to that labor on the grain farms ; secondly, that it is produced from one-fifth the land required by grain for one hand, and returns a profit from that one-fifth more than double that yielded by the grain crop, at the present depress-

ed value of the staple ; thirdly, that it gives employment to the same quantity of labor employed by the grain crop *for double the time*, or to *double the quantity* of labor for the same time.

“The conclusion follows, that the production of cotton is a necessity to California : because it can be produced here cheaper than at any other point on the globe, and manufactured with the same economy ; because cheap cotton goods enable her to compete with the East for territorial trade, and with all nations for that of Mexico, Central and South America, and the Pacific islands ; because it contracts the area now cultivated per hand, leads to a more thorough cultivation of the soil, and prevents that system of ‘land-killing’ which results from the production of a single staple crop. Witness the condition of the uplands of the South, and many grain districts of California.”
