Methods of Shipping and Packing.

By W. S. Hart.

Mr. President, Ladies and Gentlemen:

It has been wittily said, "To train a child, commence with his grandfather." So to market fruit easily and profitably, one should commence by so cultivating, fertilizing and handling the grove as to produce good fruit, i.e., fruit of desirable sizes, good color, fine appearance, heavy weight, leathery rind and with juice qualities of the highest type; but, as all this has been and will continue to be discussed in these meetings by other committees, I will pass on to the time the fruit is taken from the tree.

By a careful study of Prof. G. Harold Powell's very valuable report, "The Decay of Oranges While in Transit From California" (Bureau of Plant Industry, Bulletin No. 123), and the report of Prof. Tenny before this society last year, all orange growers should become convinced of the important part that careful and proper handling of the fruit bears on the matter of successful marketing. With the best product of its kind, put on the market in the best possible shape there remains little in the way of "marketing problem" that need tax the ability of any able business man.

Every handler of fruit wants the output of him who furnishes the best. To the dealer it means high prices, the most profit, the best trade and the finest kind of advertising at no cost whatever; for every grower wants to get in where high prices are being steadily realized, no matter what the quality of his own fruit may be, and the consumer able to pay for the best goes to the high-priced merchant, feeling assured that there is where he will find it.

I propose in this paper to give special attention to that branch of the subject covering the preparation of oranges so that they may command the attention of the best trade on arrival in market, leaving the broader but not more important phases of marketing to other members of this committee, whose experiences especially fit them for the work.

Hire all help by the hour, except, possibly, the foreman and box-maker. When sending the pickers to the grove they should be well equipped with plenty of the best tools for their work that the market, or the employer, can provide.

A strong draft animal, with nose covered so that he cannot browse even a leaf from the trees, a good, three-reach platform wagon so made that the hind wheels will follow the tracks of the front ones, plenty of good field boxes made to rest one on top of the other in a way that will not allow of slipping, and with sides lower by three inches than the tops of the end heads, with openings at the sides near the bottom to allow of the free circulation of air and easy cleaning, with sides not too thick or heavy, and the box to hold no more or less than from one-
half to a full packed box of oranges according to the system of handling, and provided with good hand holds at the ends. Never use bags for picking. Either baskets, tin or galvanized iron receptacles are the only ones on the market that are safe. The latest make of basket leaves little to be desired in that line.

Send a light but strongly made step-ladder for every picker and a good extension ladder to about every three men, if the trees are of good size. Most important of all, send clippers that are strong and durable so that each picker can afford to own and care for the one he uses, and so made as to render it as near to an impossibility to clipper-cut or puncture an orange as possible and yet allow of cutting the stem snug to the calyx, or even slice a part of it from the fruit.

Until within a very short time, there has been no really good orange clipper on the market. Now the need is fully met. It is best always to send an extra pair of clippers along, and also a jug of water, that time may not be wasted in trips back to the packing house in case either is needed. No man should be allowed to use a pair of clippers that is not in perfect order so as to do good work rapidly.

With the foregoing equipment and a piece of chalk for putting their number on each box they pick, the pickers should start their work at the bottom branches and work up as high as they can easily reach; then take the step ladders and, without leaning them against the tree, clean it of its fruit to fourteen or fifteen feet from the ground. Above this, long ladders will have to be used; but the utmost care should be exercised not to jam the limbs and fruit out of place more than can be avoided; as where that is done much fruit is injured by thorn-ing, crushing, scratching, or being shaken from the tree. Do not allow pickers to pull on an orange to get it within reach of the clippers. Every orange should be so clipped that if the stem end should be firmly pressed against another orange, it could not injure it.

The picker should be trained to clip three or four oranges, where hanging handily, before putting them in the basket; which must be done carefully and without a drop of over a half-dozen inches at most. Don't leave scattering fruit, but pick clean as far as you go, unless selecting for size or ripeness. Turn the fruit into the field boxes with care, keep all dead twigs and trash out of all receptacles and keep the fruit shaded from the hot sun while waiting to be hauled. In loading, see that no box is so full as to permit of injuring the fruit by placing another on top of it, or that any may roll off.

If oranges drop so that injury is possible, lay them out as culls. There are many methods of handling fruit at the packing-house. They should be studied and the one best suited to the individual needs adopted; but there are some general directions that may apply to all cases. The packing-house should be arranged for the careful and economical handling of fruit, as little carrying from place to place as possible; as little lifting of heavy weights as need be and above and over all, plenty of light. The house, bins and runways should be kept reasonably clean and no rotting fruit be allowed to remain in them or in out-of-the-way corners to fill the air with blue mold germs. Everything that fruit comes in contact with— receptacles, runways, spouts or finger
nails—should be often inspected to see that no rotten fruit, slivers, nail heads, rough trash or sharp edges can, by any possibility, come in contact with it. If oranges could squeal like a pig when hurt, there would be noisy times in some packing-houses and about some pickers.

The markets have had washed fruit and like it, if washed without injury. No washer will do good and safe work in the hands of careless workers; but there are some now on the market that, properly handled, will rather add to than injure the keeping qualities of our fruit while doing nice work. I wash all my fruit, though it is as clean and bright as that of any grove probably, and I could hardly be hired to give up the practice. After washing the fruit should be dried, being but one layer deep before being put into bins or crowded together in any way. A wet skin does not hurt sound citrus fruits if all parts are wet. Drying on one side and soaking on another is not recommended. My own packing-house is so arranged that if fruit has to be taken in wet from the outside drying rack, it will dry evenly in the trays where it is graded.

All citrus fruits should be carefully graded into at least two grades. My own practice is to make three grades: Fancy, No. 1 Bright and No. 2 Bright. I have few russets. While grading, I have the scale insects, where there are any, removed by scraping with a light spatula of hard pine. Any orange that is even doubtful as to soundness is put in the cull box.

I prefer to pack after the fruit has been off the trees at least twenty to thirty hours and has lost its rigidity.

If the system of handling is in deep masses of fruit, then the quicker they are packed and shipped the better their condition on arrival in market. If the nights are cool and the days warm, it is advisable to close the packing-house tightly before the air warms up much, as otherwise it will deposit its moisture on the cold fruit so that they become dripping wet and unfit to be handled for the time being. With this exception a good current of pure air through the packing-house is always desirable.

From the grading trays, the fruit goes to the large hopper holding many boxes, and from there to the sizer and through the spouts to the packing-bins. The slope of the hopper should be a little greater, but for drying rack and spouting, three-fourths inch to the foot is about right. There are many sizers on the market and several do good work. I should choose one that by no possibility could injure the fruit, that would size by the largest diameter, would be lasting, simple in construction and easy to run.

The bins from which the fruit is packed should be of good size; those likely to receive the greatest quantity should be the largest; those taking the largest and smallest sizes can be of less capacity. They should be so constructed as to avoid the necessity of pulling the fruit about with the hands and should have either canvas bottoms or be well cushioned where the oranges are to drop more than four inches.

Use strong but not heavy tissue paper for wraps. The so-called Japanese is good, but a little too transparent. Paper that will give a reddish tinge to the fruit is best, if not too tender. Have your private brand printed on each wrap, and not so large but that the whole of it will show plainly on a 200-size orange. Wrap with brand opposite the stem and
pack as closely as possible without injury to the fruit. If the pack runs too high or too low, don't pass the box until it is made just right by changing some of the fruit. The sizer must be set according to the shape of the fruit and will occasionally require re-adjusting where the average shape changes, as it will do when running on different varieties or fruit from different soils.

Close packs will not stand to pack as high as the looser ones. From half to three-quarters of an inch above the heads of the box, necessitating considerable pressure in putting on the cover, is about right if packed properly in the layers. If the boxes are trimmed with lace paper, it is best to paste it at the bottom of the box and pack the first two or three layers with the brand next to it, then stencil so that in opening, that side will be the cover. If an attractive display card for the retailer to hang in his store is put in, it helps the marketing. Everything that tends to give the impression of care and neatness about a packed box and its contents adds to the price the fruit will bring and increases the demand. I have my material gotten out to orders sent in May for fall delivery. Bead the edges of every side, use a handsome strap thick enough to allow air to circulate between the boxes, and a neat and tasty stencil or printer. Don't hesitate to put time and labor into preparing your fruit for market, for there is where a good portion of the profit lies. Every large city contains one, two or three, seldom more, fruit dealers who handle only fancy stock and they have customers who care little for the price they pay but are only satisfied with the very best fruits obtainable. These are the houses that purchase from the man who puts intelligent work into his products; they are the ones that pay a dollar, two dollars or even more above the top quotations and never find more than they want of the kind that pleases them. There are only about three houses of this kind in New York, our largest city. The others pay the prices quoted, but they will pay more for the second grade or for the poorer sizes of the man who supplies the best trade than they will for the best fruit of the careless shipper.

The shipper who caters to the best trade is not apt to be the one who ships one, two or more cars a day, but he may employ as many hands as one who does and give them work four months each season, help his town as much and net as much profit as his neighbor who has several times his acreage and crop. The man who makes and markets his crop at a cost of $1.25 and gets $1.50 for it makes a clear profit of 25 cents. He who sells for $3.00 makes five times as much net gain, if we allow 25 cents for added commission and cost of preparation, and there will be a short time almost every season when he will gross six or seven dollars per box for his best grades and sizes. At these prices, the small grower of only a few thousand boxes, and groves not so large but that he can handle them properly and protect them in case of danger, may have quite a satisfactory income, while he escapes much of the anxiety and loss of the large grove owner who cannot give the close personal supervision necessary to the very best work. I am a believer in small groves, but there are individuals who are built for big things and can carry them on successfully, though they seldom reach the top of the market.

The matter of agencies through which to market is one that I will leave mostly
to other members of this committee to present; but I wish to say this much: if you put your fruit in the hands of commission houses, look them up carefully before doing so, both as to reliability and courage in naming prices. To put hundreds, or thousands, of dollars' worth of your products into the hands of strangers at a distance, with no security or guarantee of a square deal, is one of the strangest customs of our business system. You would not loan money to them without careful consideration and ample security. Why should we throw such fearful temptation in the way of our fellow man and give him so many chances for fraudulent gain with little chance of punishment until, whether honest or not, he gets blamed when results fall short of our expectations? If we must do this, let us at least take every means possible of eliminating temptation and assure ourselves of the integrity of those who sell our products. Some salesmen have little trouble in asking 25 cents above the market for something extra nice; but for the shipper of the choicest oranges there must be salesmen who know a good thing when they see it and who can ask fifty cents, a dollar or two dollars above the market with absolute assurance that it is not an over-charge.

Much condemnation has been heaped on the heads of those who make early shipments of green fruit. It is often claimed that such shippers get meagre returns and ruin the orange market for others for the season; that it should be frowned upon by every citrus grower or handler and stopped by law, if possible. The first claim is seldom true, for the worst of these sinners. It is those who compromise with their conscience and follow the bolder ones, who take the low prices. For instance, a neighbor with groves alongside of mine shipped his tangerines in early November and got, gross, $6.00 and $7.00 for them. I commenced November 20th, and they sold for $5.00 and even lower later in the season. I am no lawyer, but I don't believe that the law can touch the matter, except it be through Boards of Health at the northern end; nor would I advocate it if I could, for I believe there is and always will be legitimate demand for a small quantity of early green fruit at good prices, and just so long as this is the case, just so long as growers are hungry for money in the fall, just so long as the fear of loss through drought, cold or other disaster is upon him who has a crop for sale—just so long will there be a rush of green oranges to market early in the season, a few condemned by health authority, a few high prices realized and then a slump and disappointment for the laggards. As these things will continue, why rant over them? Let the early shippers have their experiences. They cannot all be happy ones, and the more there are the sooner will every consumer get to know the true conditions, and the lover of sweet oranges will be taught to wait for them until Nature has had time to ripen their sugars and temper their raw acids.

Though oranges grow in size throughout the shipping season and very high prices are often realized in March and early April, the danger from cold to the fruit of unprotected groves, the great dropping that commences when growth starts in the tree, the tendency to crease, to get puffy, to dry out and lose flavor late in the season, make it questionable whether it is best to hold even a part of the mid-season varieties later than the
first week in March. After this, the later varieties may be shipped at good prices and fair profit from groves well south in the state or farther north if the groves are protected from injury from cold.

Load your own fruit into cars wherever possible, even though there be but a few boxes in the shipment, and see that the ventilators are all open.

As between express and freight, for sound fruit I prefer the latter, believing that the rougher handling and stealage by express more than compensate for the difference in time of delivery, to say nothing of the greater difficulty in collecting just claims.

The lesson, then, that I would teach is carefulness that should run, like the red strand in the cordage of the English navy, through all our operations and relations with our fruit. This, coupled with honesty and loyalty to ourselves and the handlers of our products, will allow of our shipping our fruit to the north in ventilated cars and there hold more than our own against the pre-cooled and iced fruit of our worthy rival, California; but the lack of it during the past season has cost us dearly in both money and the reputation of our fruit.

I also have some rules posted in my packing-house, and if you would care to hear them I will read them to you. They are for the guidance of help, and No. 18 is for casual visitors as well.

1.

Care must be taken when picking oranges not to clipper-cut, bruise or thorn them.

2.

Every picker must put his number on the boxes he picks.

3.

Do not let oranges remain in the hot sun when waiting to be hauled, or for long when on the drying rack.

4.

Every orange must be washed, and sponges used regularly when washing.

5.

Keep plenty of water in the washer to hold weight of fruit so as to wash clean.

6.

All oranges must be examined for long stems and all found must be closely clipped before the fruit goes into the washer.

7.

When curing, oranges should not be over two layers deep.

8.

Keep a constant and careful lookout for anything that will injure the fruit, such as nails, slivers, sharp edges or long finger nails. All persons handling fruit for shipment should keep their finger nails closely cut.

9.

Be careful to have cushions in place when pouring oranges into bins or hopper, and see that no injury is done to any that may be already there.

10.

Look out for blue mold about bins or boxes and for rotten oranges in the packing-house. These should be removed at once.
FLORIDA STATE HORTICULTURAL SOCIETY.

II.

Care in picking, washing, grading, packing and all work connected with preparing fruit for market is of greater importance than speed.

12.

Every doubtful orange is a cull.

13.

Citrus fruits should remain in this packing-house to cure at least thirty-six hours.

14.

Pack true to grade, size and quality, and so that when the cover is put on the fruit will be tight in the box.

15.

Each packer must put his initials or number on every box he packs; also grade and number of fruit in the box. Customers will be requested to send us the packer’s mark on every box badly packed, so that the packer can be held responsible.

16.

The W. S. Hart brand must be known as an honest brand.

17.

No excuse is a good one for carelessness or waste of time.

18.

All persons, both casual visitors and help, must bear in mind that this is a place of business and not for loafing, long stories or gossip; nor must visitors divert the attention of the help from their work for long at any time.

No one but the undersigned has authority to change these rules.

W. S. Hart.

He who knows it all and resents instruction, is hopelessly ignorant, a disappointment to himself and vexing to others, the last to be employed when help is scarce, and the first to go when it becomes plenty.

By F. G. Sampson.

Mr. President, Ladies and Gentlemen:

When I learned of my appointment on your Citrus Packing and Shipping Committee, I wondered what I could say at all worth while, but from shape of market the past season, it does seem as if the time were right now when we should take counsel together for the bettering of conditions. We can start with the fact that if we are calculating to hold any position worth while in the markets, we shall be obliged to adopt the most improved methods all the way through from growing to marketing our fruit. The citrus plantings in California, Porto Rico, Cuba, Arizona, and Mexico are enormous and add to that the yearly planting in Florida makes an increasing supply that leaves no possible room for profit, for anything but the best work of which we are capable. The production of all other kinds of fruit is year by year being brought to greater perfection in quality and attractiveness, and any orange to get preference over other kinds of fruits must be both good to look at and to eat. Florida does produce such fruits; but those
very qualities (thin skin and full to bursting with delicious juice) calls for extra care all the way through, and in that, I am afraid, most of us are not doing our best at all. The past season was opened with shipments of fruit as green as the leaves on the trees; it is no trouble at all to color an orange, but it is impossible to make an unripe fruit fit to eat, and pretty nearly so to get a buyer for second lot after sampling first. Some early oranges are ripe enough inside before the rind is fully colored and should be shipped and so prolong the season; but until you yourself enjoy eating them they should be left on the trees.

Then, unless you have been in the markets and actually seen condition on arrival of many of the shipments, you have no idea of the amount of decay. The percentage of shipments arriving in bad order is responsible for continual lowering of the markets; for you can bet your last dollar that if the buyer sees any decay at all (and he will see it if it is there), he will buy at a price allowing for double what he suspects is there.

Now, it is not enough for oranges to arrive sound; they must stay so until the retailer can sell them and the consumer eat them. Our fruit not standing up is responsible for the tremendous margin the retailer exacts.

Then, again, no orange that has been in contact with a decaying orange has the fresh, inviting flavor that we must furnish our customers in order to secure consumption at good prices for the size of crops in sight.

The wide range of prices the past season shows that the buyers are ready to pay well for what they want. For instance, auction market sales New York February 26th Florida 1.20 to 3.25, February 27th 1.25 to 5.20, and 29th Florida 1.25 to 5.65, California 1.65 to 3.10, Porto Rico 1.10 to 1.55 for oranges and grapefruit, these date from 1.12½ to 8.62½. The growers getting 3.10 to 5.65 for oranges and 8.62½ for grapefruit were getting rich; the others, I guess not.

Part of our marketing troubles the past season were from causes beyond our control, national financial troubles and drought causing summer-bloom fruit of different ages; but this trouble was increased by many shipping all ages together, which, with decay, soon brought our markets too low for any profit.

The Agricultural Department, in bulletin 123, clearly shows the cause and the practical—not theoretical, mind you, but entirely practical—remedy for most of the decay and we had best be getting busy studying and following.

Putting me on this committee means, I suppose, that I am to give my own packing methods and so help start the discussion. We use the cloth-lined, rattan picking baskets, strap that goes over shoulder, of wide webbing, hung low enough so the elbow just clears the basket, which is then where the forearm reaches the bottom of the basket; the fruit is placed in basket, not dropped. We round off ends of bent-blade scissors blunt, and pick all bottom fruit before using ladders. The picking “boss” sees that a picker slips his basket off his shoulder, laying a dozen or so oranges in bottom of box and then tipping basket with one hand eases fruit into box with the other, and he puts his ticket in box as filled. Hand holes in field boxes are not cut clear through and so avoid finger-nail cuts, and boxes set down, not dropped at all. At the packing-house the fruit goes to grading bench, cloth-lined, and with
heavy duck apron at the ends, with one side nailed down. The box is placed on a shelf four inches lower than the table, and the grading boss gathers end of apron in each hand and holds tight over box of fruit while he upsets the box and then lifts box off. As the fruit spreads out, if it shows long stems, they are cut and word is sent to the grove to straighten up that picker.

Have short side benches that hold boxes for two grades bright and one russets, and cull box under bench and try, and do not forget to use cull box. Trucks hold twenty-eight boxes carry graded fruit to different piles to cure a couple of days. Sizer-hopper has shelf and apron. We use sizer made by Alfred Ayer, Ocala, that sizes, and is set so that in packing, each tier has to have pressure to get last row in, and so the box will stand tipping at quite an angle before the fruit would roll out.

We use Warner wrapping machines that twist paper tight and get box packed tight all the way up, and so avoid so much pressure on top as box is nailed up. As boxes are nailed up they are stood on end, two high, and have trucks with 11-inch axle and wheels inside, so the two boxes are put right in place in car without further handling.

We hire by the day, for I fully believe that piece-work is responsible for very much of the decay; at any rate it is certainly easier to get the extra care from a hand when you are paying him for the extra time that may be required; but really when once the habit is formed, it requires very little more time to handle right, but it is certainly a day's work to make our hands understand we will have careful handling.

My paper is too long already, but I want to say that I think our marketing methods must be improved, or our increasing crops will bring us no profit. The buyer and packer who did not lose money the past season was exceptionally fortunate, and, naturally, all will contract very carefully this fall. I believe we must have a central distributing headquarters at Jacksonville, so the crop can be handled so as not to have each packer competing for every sale in each and every market.

To handle the present crop in sight, the packers ought to get together for thoroughly systematic distribution. We ought to have very much lower freight rates to nearby states. We could then sell fruit very good to eat but not quite up to standard—cheap, and still get more than with distant freightage and so relieve the large markets of so much off-grade fruit. It is the accumulation of off-grade fruit that breaks our markets. Our Southland is prospering and will take lots of our fruit if we could deliver at reasonable freight rates. Unless our shippers organize and use quite a little judgment, we are likely to see our markets go to smash in a hurry this fall. The early markets paid so much better than the later, the past season, that the last one of us will probably think it smart to work all night and Sunday, too, to swindle someone with our unripe fruit.

I believe the situation a very serious one, needing the most intelligent handling. If we continue our present policy of "each one for himself and the Devil take the hindmost," my judgment goes on record right here, that he will get a good big bunch of us this fall.
Mr. President, Ladies and Gentlemen:

I want to call the attention of the society to the extreme importance of a most thorough study and discussion of means and methods for the sale of our products of Florida. The extremely low prices obtained for everything this year, should have touched every grower in his tenderest point—his pocketbook—severely enough to make him think and act.

Since the collapse of the panic before Christmas, except a few cases of especially fancy stock, oranges have not netted, on the trees, over 25 to 50 cents when consigned; at least that has been my experience with several cars to various markets reported as the best; $1.25 to $2.00 being the average limit for good oranges. The causes preached to us were the "panic," and the "large crop." By investigation on my trip north, and since I have been here, has given another cause,—green fruit early in the season. The green-fruit proposition is brought about by two main facts or conditions. The first is, on account of the comparatively few Florida oranges since the big freeze, the great mass of orange eaters have not learned what a good ripe Florida orange is, and do not know a Florida from appearance, or where it comes from, so have not sufficient knowledge to judge by. When there are few, if any, other oranges, the green stuff is offered for sale. They make a first purchase of "fine sweet Florida oranges," and Oh! the awakening; and straightway their opinion of Florida oranges is decidedly expressed in—"Well, if that is a sweet Florida orange, I never want any more." By the time they get over that disappointment, they venture to try some other kind, and they find a colored green California and try it. It is not real sweet, but as a Florida green colored orange is always very much more sour and rank than a California of the same stage of development, without further trial, remembering how awfully sour the Florida was, he remains a California chooser.

This experience was told me by several people from several states and markets, and positively asserted that the sale of green fruit had injured Florida's reputation for good oranges to an enormous extent.

As speculators were the chief cause of the shipment of green fruit the past year, and as the majority got left to the tune of 50 cents to $1.00 per box, after the distribution of the first car in a community, they cannot work the "early sweet Florida" game in the same places again, at least to the consumer, it is to be hoped the state may redeem its name in part the next crop. Until this season I have always been able to sell my Florida oranges in competition with Californias at an average advance of 50 cts. over Californias. This year the reverse is the case, except with people who know the difference. Our greatly increased foreign population who have not yet had the opportunity to learn the difference, make up a majority who buy through ignorance and looks—bright Californias.

The dealers have proclaimed loud and long that "the poor, the laboring class eat the oranges, and they are out of work and can not buy."

Is it true they can not, and do not buy? We are all aware the crop has been sold, and consumed—somebody ate the or-
anges. *Did the consumer* get any advantage of the low prices paid the grower?

A few figures from my own sales on consignment of about 1,500 boxes, mostly car lots, will give one example of the very small returns to the grower. The [average](#) sales returned was $1.78. The average freight, cartage and commission, was 89 cents, leaving 89 cents f. o. b. at packing-house. Taking from this the usual picking, packing and shipping 50 cents, leaves 39 cents on the trees. This was during January, February and March. Those sold f. o. b. at home did better, bringing $1.30 to $1.40, showing considerable advantage of f. o. b. at home, over *consignment*. But this year there were very few f. o. b. buyers, and not all could be relied on to carry out their contract.

Now, let us see if these low prices were *necessary* to the retailing of the fruit with a *reasonable* profit.

I have inquired carefully as to many places, from Georgia, North, East and West, and in my own town, and find that retail sales were 15 cents to 20 cents for the smaller sizes, progressively upward to 25, 35, 40, 50 and 60 cents as to size, and one gentleman living in New York said he paid 75 cents per dozen for 150-size. Averaging all prices would give 37 cents per dozen. If oranges run all sizes in equal quantity, the average dozens in a box would be 15½, giving an average retail sales price of $5.73 per box. If we only include 250s, 216s, 175s, 150s and 126s, we get an average of 18¾ dozens, and averaging per-dozen prices at 15 cents, 20, 30 cents, 35 cents, 40 cents and 50 cents, we get an average of 31 2-3 cents per dozen, 31 2-3×18¾ = $5.85 per box, *average* all sizes and prices.

If we grant a loss of 16¾ per cent. for decay, there is still left $4.90 as the retail price per box. The above average commission house return price of $1.78 leaves a *net profit* of $3.12, while the grower has received the generous sum of 39 cents, including his *investment*, and profit?—where is the profit?

Suppose we add one dollar more to the cost to the small and interior town retailers, he still has $2.12, or over *five times more* for selling than the grower for producing.

Fruit-growers of Florida, are you willing to continue this unequal division of the products of your labor and expense, without an effort to change?

Let us take another example in the vegetable line—cukes. The first week in May cukes selling in the chief markets at $1.00 to $1.25. The average express charges in less than car lots not less than 75 cents, commission 11 cents, hamper, picking and packing 30 cts.—$1.16, average consignment sale $1.25; loss, 3½ cts. for grower. Consequently none but those who can ship in car lots have any chance of coming out even.

Investigation as to retail prices, by personal inquiry at large and small stores and fruit stands, I am told cukes average—small, medium and large—6 dozen per basket; averaging the prices 30, 40 and 60 cents per dozen—43 1-3 cents or $2.60 per basket, or $1.38 net profit for selling, against nothing or a loss for growing.

What is the use discussing how best to grow our products if we can get nothing for them? The few commission men I have talked with about the matter, who *should* be the grower's agent to see that he got his share of what the *consumer* pays, say they do not see how they can change conditions. Although they have a society, they make no *concerted* effort to get our equal share, but, on the other
hand, compete with each other in selling our products, thus favoring the retailer, practically giving us over into his power, as the foregoing figures demonstrate.

Is there no way to remedy this condition? This is the great problem for our society to solve. Can we do it? Can the growers come directly to the consumer and cut out the middlemen who now are only agents for our undoing?

The consumer pays enough for our products, but we get very little of it.

The result of my study of the question is, ORGANIZATION OF GROWERS SELLING DIRECT TO CONSUMER.

That there will be many difficulties in its accomplishment, goes without saying. But that there are business men in our society to devise a plan and work out the details, I am certain; and when done, taking present conditions as a basis, I am sure there will be much more profit in the selling than in the raising.

As I cannot be present at the meeting to discuss the matter with you, I will give you a few of my thoughts as to a plan.

Let every district or section organize and establish a common packing-house at the most convenient shipping point, so as to ship in car lots. A packing-house implies a competent picking and packing crew.

Elect a competent man as grader and inspector of the fruit, either on the trees or as delivered at the packing-house, and each grower be given a credit certificate for the number of boxes of different grades, or a more exact way, the number of pounds, and then let his fruit lose its identity as his special lot.

A manager for each packing house or board of managers representing several or all, are then ready to sell f. o. b. at packing house. Or, having organized and opened a sales house or houses in places capable of taking—consuming a car load a week and upward, keep these sales houses supplied through telegraphic communication with a general head as they need. The details of retail distributing houses can certainly be worked out by successful business men. Each grower, each manager of packing-house, and of sales store, should be a stock owner, or interested financially, and partake of the profits. The organization could by vote fix starting price for fruit on the trees, or the proportionate percentage of the net proceeds at stated times.

As it is now, the grower must pay the cost of shipment before they leave, and gets no money until the consignee gets ready to remit—from ten days to three months, and by drawing no money from the organization for the same average time the capital need not be large.

I have not the time nor the capacity to go into all the details, but hope I have suggested enough to introduce the subject, and certain that together, a successful way of benefiting ourselves and the consumer can be devised.
Mr. President, Ladies and Gentlemen:

Starting at the beginning of the season the first problem is the packing of fruit that is not thoroughly mature; this fruit requires to be kept in the packing-house several days until the water in the rind has sweated out. If this is not done before the fruit is packed it will sweat in the box and undoubtedly cause decay, which will not develop until after it has left the packing house, and the grower will often be astounded when he gets a letter from his commission merchant informing him that his fruit, which he knows left his packing-house in good order and condition, has arrived in bad order, and has had to be sold at a sacrifice.

The grower often thinks the commission merchant is deceiving him and trying to cheat him when the true reason is found in the fact that the fruit having sweated in the box, has caused the wrapping paper to become thoroughly wet and the whole contents of the box are in a very moist state, which is a condition highly conducive to very rapid decay.

Let us beware, then, of shipping oranges with moisture in the rind.

SIZING AND GRADING ORANGES.

When packing fruit it is well to remember that most of our fruit is packed to be sold to some stranger, who in turn will probably sell to somebody else; therefore it is necessary that he should have some idea of how many oranges he is getting in each box and of what quality they are. The number and grade, then, should be put on each box plainly and the contents should be strictly according to stenciling both in number and in grade. Any irregularity in this respect will make the buyer suspicious of the fruit not being equal to the markings and in future buying he will feel unwilling to pay full market prices, and hold a general distrust of orange packers. It is necessary, if each person concerned in marketing oranges is to get their full quota of profit, that each and every one does his share of the work and that all should be in sympathy. When all can be trusted there is an economy in the marketing that should be an extra profit to all concerned. I have known of well-known brands of fruit fetching higher prices because it was known to be exactly as represented by the markings on the box. Such fruit often passes through the hands of the middlemen without the delay and cost of inspection.

Let us, then, be careful to mark and grade our fruit correctly.

PROPER PACKING.

One of the worst features of poor orange packing is the putting of too much fruit in the box; in some instances so much is put in as to cause the top and sides to bulge out. This is done to such an extent that the top of the box cannot be nailed in the middle; the fruit in such a packed box is nearly sure to be very much bruised by pressure from other packages in transit and from handling. If dealers find much damaged fruit in their purchases, they have to sell the good fruit at very advanced prices to make their purchase profitable, and thus materially restrict the consumption of oranges, which restriction results in glutted markets and poor returns to the grower, whilst the consumer is complaining of the high price of retail oranges.
These results are brought about by loss of damaged fruit caused by putting too many oranges, or too large oranges, in too small a space and then subjecting the box to outside pressure from other freight, both in the railway car and on the transfer trucks.

SIZE OF ORANGE BOX.

What size should an orange box be? The size should be regulated by economy for the grower and availability to the consumer. The packing will be most economically done by having a box large enough and not too large for one man to handle and lift without other aid than his own physical strength, and large enough to keep a man of ordinary strength in good exercise, thus handling a good many oranges at one time and at the same time keeping up a high degree of manhood amongst the orange fraternity.

The size of the box from the seller’s point of view should be that which is most available to dispose of in the market. The present size of the box, viz.: 12x12x24 inches, would seem to be large enough and not too large for one man to handle; and if the commission merchants do not complain of the size as being awkward to dispose of, I do not think we should change. We should pay no attention whatever to any size of box that some other orange section may produce, knowing fully well that the orange buyers will pay just so much, that the fruit will bring them a profit and that their price will be regulated by their ability to make their profit out of the contents of the box.

The unit of economy in the size of the box is that it should be large enough to tax the strength of an ordinary man, and not larger, and if the present size of the box fulfills this condition, any other size would make the cost of handling greater, which extra cost would have to be paid by the grower when the fruit was in abundance and low in price, and by the consumer when the fruit is scarce and high and always means money paid to the middleman either by the producer or consumer.

Some sections may find it advisable to have a very small box, as possibly not much of their fruit is wanted; but if Florida fruit is classed as being equal to the best, let us send it out in abundance, and not try to restrict our output by contracting the size of our box.

DISCUSSION.

Mr. Hart—Now, there is a great deal of difference in white papers. Some white papers will give you the proper color. The mandarine orange is of much better quality than the tangerine, but the latter brings nearly double the price of the other. The Japanese paper does not give that pretty tint and it is so transparent that it shows up the blemishes badly, but it is tough and does not break or tear easily. I also think the print is of much importance. Your private brand should not be too large. I have seen some so large that on a 200 orange you could only see some confused printing on the middle. A good print can be made small, yet plenty large and plain enough to show the whole of it on a 200 orange.

Before the fruit goes into the washer the thumb, finger or the eye comes in contact with every calyx, and if any stem is left on them they are carefully clipped off. It would be almost im-
possible for a long stem to get by my men as far as the washer.

Mr. Skinner—I have heard it said that Mr. Sampson puts up the best pack in the state, not excepting any. I think it will do us a great deal of good to listen to these men and learn what they have learned by experience. The great trouble with me is labor. We have to import from 100 to 200 hands every year and we have to get green hands and when you have to deal with these fellows and get them to pare their finger nails, etc., we are up against it. I have one thing in my packing house that is of great help to me, and that is truck boards. When the boxes are nailed up they are set on this truck board and we have a special truck that is slipped under it, and the boxes are moved right into the car and are not touched at all. The truck board protects the fruit entirely.

I was struck by a little article I saw in the paper not long ago. The writer said he set his fruit over some steam pipes so that it could not get cold and attract outside moisture. He also said he washed his fruit with a little salicylic acid, and he said the wounds that it had received dried over. I have been thinking of that. I use a washer with a great deal of satisfaction except when the burlap breaks loose, then I have a good deal of trouble in getting it fixed. I think my washer is the best washer there is, but it is necessary to have good burlap.

Mr. Hart—I would like to ask Mr. Skinner what becomes of the boards he speaks of?

Mr. Skinner—The fellows that are trucking run the truck to the end of the car where the man is loading, and he lifts the boxes off and sets them in place. The truck boards are thrown to the side of the car and a man sets his truck under them when a pile accumulates and carries them back into the packing house.

Mr. Hart—I saw them in California used for plums and I thought they would be fine for oranges. The point I mean to bring out is that you would have to handle your oranges once more than you would without them.

Mr. Skinner—we use them when the fruit is brought into the packing house, in fact, we use them everywhere. You see, our station and packing house are together.

Mr. Hart—Most of the trucks that are used are so made that the arms are so high that it comes right into the middle of the section where it can do the most harm. I think them very bad, indeed, to handle fruit. I once put an iron bar across them to prevent that, but if these boards can be used, I think it wise to do so. Do you use one board to three boxes?

Mr. Skinner—Yes. You see, you have to have two cleats underneath the boards. These cleats fit right over the prongs on the truck, and you can lift them up and carry them without the least difficulty or danger.

I might speak of another thing. Perhaps you are familiar with the California load. In refrigerator cars especially it is a fine thing. You put six boxes across the car, standing them up on end, and there is a space of about four inches between each box in an ordinary car and six inches in a vent. Then two strips are nailed across, leaving a vent clear through, each box by itself. There is a straight line of
boxes from one end of the car to the other. The cost of the stripping never exceeds $1.25. To show you how well it holds, I had a car handled by the Atlantic Coast Line in its usual careful way. They were going about forty miles an hour when a wreck occurred. That car turned over on its side and rolled down a hill. However, each layer of boxes settled down against the next one, and only about six boxes in the car were broken.

I think Dr. Inman might be able to tell us a good deal along this line, if he will.

Mr. Inman—Mr. President, Ladies and Gentlemen: Had I known that I would be called upon, I might have formulated some ideas which would be of interest to my fellow fruit growers. I am not a good talker, and if I had any ideas, I fear that I cannot present them in a very interesting way. But I can probably tell the story as it appears to me.

First, let us cast about and take an inventory of what we are doing in the way of growing and harvesting citrus fruits in Florida. Are we producing as much or of as good quality of fruit as we should do? And after it is grown, are our methods of harvesting in keeping with the spirit and progress of the times? I am free to say that we are growing but little over one-half of the fruit that the groves of the state are capable of producing under a more through system of care and cultivation. But, upon this subject I do not propose to dwell, as it, within itself, would require a volume. However, I will say right here that I have visited a good part of the world where citrus fruits are grown, and have come to the conclusion that, so far as I have seen or acquired knowledge of, there is no country or region which affords the advantages for the growing of oranges, tangerines and grapefruit that we possess right here in Florida; no place where fruit grows to such perfection or the groves produce so abundantly, and no place where an enterprising man can engage in the business with the same certainty of being well compensated for his labors.

Harvesting.—This is one of the all-absorbing subjects of the day, and the one demanding the most thorough investigation and thought, followed by energetic action upon the part of every one engaged in the fruit-growing industry. Our careless and rough handling is costing the state thousands, yes, hundreds of thousands, of dollars every year. I make the assertion that fully ninety per cent. of the Florida fruit which arrives in market in bad order is attributable to careless clipping and careless handling. All of us flatter ourselves that we are taking extra pains and doing better than our neighbors, and that if our fruit does not reach its destination sound, the fault lies with the transportation companies and not with us; when, if the truth were known, fully one-fourth of the oranges were either punctured by the clippers, scratched by the finger nails or bruised by dropping, jamming against the ladders, pouring into the field boxes, rough treatment by teamsters, emptying and piling up in the hoppers, or falling from the sizers into packing bins. All of these matters seem to be of small moment until they are carefully looked into. When that is done, the result is simply astounding. We
must awaken to the importance of these little details, and bear in mind that fruit should be handled with the same care that we would give eggs, and will actually stand no more roughness without great damage. Stop and consider. Is there one of the abuses mentioned that we cannot correct and entirely eradicate?

I am not making these statements at random, nor without abundant evidence to substantiate every word or assertion. They have all been confirmed by actual tests, made by government experts, both in this state and California, during the past season. Remember that the slightest scratch upon the rind of the fruit is just as surely fatal as a deep puncture or severe bruise, provided the fruit is exposed to the rot spores, which are never wanting in every one of our packing houses. Every small inch of atmosphere contains thousands of them.

Marketing.—Here comes the business part of all of our undertaking, the one that must be revolutionized very soon, or the business of the growing of citrus fruits in our fair state will soon fall into a more chaotic and helpless state than it is at the present time. Who is to blame? No one but our dear selves, and no one but the growers can ever correct the existing evils. We can and must do it.

Let us take the state of Florida as a whole, and make it a business proposition, applying to each one of us singly; for what concerns any one of us, applies to every one in Florida engaged in the growing of fruit.

Let us see if we are acting as business men should—are adopting good business methods. What are we doing, and what are our methods, and what must we do? If you will bear with me, I will enumerate some of our follies. To begin with, we are supporting about one thousand solicitors and drummers, representing commission houses from almost every city in the North, South, East and West. Add to these one thousand men about five hundred livery rigs and drivers. These are all high-priced men, and expensive livers. This army of itself costs us hundreds of thousands of dollars annually. But this is but the beginning of our extravagant management, for we are supporting, in a good part, an equal number of commission houses in nearly every city in the Union. I do not wish to be understood as casting any reflection upon these men, nor upon the fruit houses; for I acknowledge that the great majority of these men, also the houses which they represent, are doing a legitimate business, and at the same time doing the very best they can for our interests. But, is our way or system of marketing correct and in keeping with good business principles? I would answer, most emphatically, No! No! You will ask, “Is there any remedy within our reach, any system of economical marketing upon which we can all unite, one which shall be just to all, one by which the widow and the small grower with a badly assorted grove, producing a little of all varieties and kinds of citrus fruits, will fare as well and receive the same price (quality the same), as the most shrewd and competent business man?” To this I answer, with the same emphasis and confidence, Yes!

You inquire by what authority and
ways I have arrived at these positive conclusions, and how I am able to talk as though these were established facts. To answer and prove that I am not dreaming or theorizing, I will tell the whole story as I know it.

I have been in Florida twenty-two years, and during all of that time have been engaged in the growing of fruit, and that, too, with very good success and results, which I do not complain of. But, for the past two or three seasons, I have been convinced that our methods were not the best, and that the orange growers of California were outdoing us, both as to harvesting and marketing of their crops.

On April fourth I decided to go to the Pacific coast and investigate, not alone for myself, but with the hope of benefiting my neighbors as well. By appointment with Prof. Tenny, a government employe, I was met at Riverside by Professor Powell, who has been engaged, through the Horticultural Department at Washington, for the past five years in making a thorough study of conditions existing there, and teaching, by a vast number of experiments, the growers how to correct the evils and errors, which he discovered existing there, which were many, yes, even more and worse than are besetting us at the present time. The growing and marketing of their oranges was affording almost no profit and, in many cases, an actual loss to the producer. Their methods of harvesting were very crude, and when it came to selling their fruit and getting it to market, the results were such that a great many of the orange groves were abandoned, or cut down and the land planted to other crops. It seemed impossible for them to get their oranges to the Eastern markets without their arriving rotten. How to remedy matters was the task undertaken by Professor Powell, and that, too, almost single-handed, for he was supported with an appropriation of only $3,500 annually, out of which he had to meet all of his personal expenses, as well as to pay his assistants (when he had any). This season the appropriation is $6,700.00 and he has seven men to aid him. It seemed a Herculean task, and one almost without hope. But, what has been the result, what has this one man achieved? How plainly has he demonstrated that men, not money, are the powers which are moving the world at the present time.

In the first place, he demonstrated that the harvesters, and not the transportation companies, were at fault for the rotting of the fruit. He showed the growers, by actual experiments, that in some cases over fifty per cent. of their fruit was hopelessly damaged before it was delivered to the railroad company. This was his first key to the solution of the problem, and, with all of his experiments before the growers, the remedies were easily found, and all enterprising growers set about jointly to correct and remedy every bad feature in the harvesting, until today oranges in California are handled with the same care as eggs. And claims upon the transportation have been reduced about seventy-five per cent.

Next, as to the methods of marketing, and the organization known as the California Fruit Exchange, which is today, I believe, the most thorough business organization in the United
States, not excepting the Standard Oil Company or the United States Steel Company; and, more, it is one without graft or fraud, and to which I can see no probability of fraud creeping in. The California Fruit Exchange has only about or less than $20,000; if I remember correctly, it is $15,000 capital, upon which it never pays a dividend. I will try to tell you something of the Fruit Exchange. This organization consists of numerous packing houses, or associations. These associations are usually made up of neighbors, for whom it is convenient to do their packing at one packing house, and of these associations there are a great many, and each one of these associations is entitled to one share of stock (no more) in the Fruit Exchange. This share of stock entitles the association to one representative to or in the Fruit Exchange. The Exchange is made up and controlled entirely by these representatives from associations (who do not draw pay). These representatives elect the board of directors; the board of directors elect the officers, and the officers elect the President and employ the executive force. The Fruit Exchange is almost a complete duplicate of our Federal Government.

All business is transacted at headquarters at Los Angeles, and it is surprising how much can be done by a few men when well systematized. For instance, and to illustrate some of their methods and their success, only five years ago the Fruit Exchange was organized, with only a few associations. It then only controlled a small percentage of the fruit. But, by thorough business methods and advantages which co-operation afforded. It has grown very rapidly, until this season the Exchange will handle fully seventy-five per cent. of all the citrus fruit grown in California, amounting to over thirty thousand (30,000) car-loads. And all of the sales are managed by two head salesmen, with only six traveling salesmen to help them. How does this compare with our force employed for the selling of our small crop? It is not five per cent. of our expense. In fact, the whole expense of managing associations, Fruit Exchange, collections, buying and all, does not amount to five per cent. Losses, defalcations and non-payment of accounts, as shown by the books of the Exchange, which are open to all, amount to less than three hundred ($300) dollars, and this, too, upon sales amounting to over thirty millions of dollars ($30,000,000.00). Payments for fruit to the growers are made in cash every thirty days, no losses, no worries. You might inquire if there are any other benefits or advantages to be derived from such an organization as the California Fruit Exchange. Yes, very many. For instance, before this organization was effected, the growers were paying nineteen (19) cents each for orange boxes. Today they cost them 12 to 12½ cents. Paper, machinery, the price of help, and the supply are managed by the Exchange. Freight rates are all managed by the offices of the Exchange, and the rates which they pay on fruit, considering the broad distribution which they enjoy, is very much less than we pay from Florida, notwithstanding that we are two thousand miles nearer to the markets.
A very small proportion of the California fruit is re-shipped from point to point, as the Florida fruit is. The California rates are all made to Denver, Colorado, and beyond. It costs no more for them to place a car in Boston than in Denver, freight the same to all points east of that city.

Shall I tell you how the labor is done by the Californians? This might be of interest and may be a help to you in getting down to a proper way of doing the work, with the object in view of correcting the present errors and abuses.

To begin with, all labor is employed by the day, except the wrapping of the fruit. This work is nearly all done by women, and the price per box is two and one-half (2½) to three cents. In all packing houses which I visited they were paying two and one-half cents per box. The picking is done by man, not expert pickers such as we employ, but Mexicans, Chinese, Japs, Indians or white men, under the eyes of a Superintendent, whom they must obey to the letter and in the proper spirit. This field superintendent is supplied by the association for which the work is being done, and all gathering must be done under the supervision of their officers, and not according to the taste or ways of the growers, for here is the beginning of the careful work, and of very vital importance, for an error here is past remedying. We cannot patch up a damaged orange.

Hauling.—This is all done upon spring wagons, and the field boxes are carefully set upon the wagon and when taken off are carefully set down, not shoved or thrown. They never use a field box larger than a common orange box, and they fill these boxes about two-thirds full and carry about seventy-five to ninety boxes upon each wagon.

I am asked how it would be possible for us to form such an organization in Florida, where our matters are in such a state of confusion. You say that it would not be possible to get a sufficient number of growers to unite to control a majority of the fruit; too many firms and individuals with private interests would oppose and work against us. Yes, they would do their best; but we would not need any certain percentage of the fruit. The principal object should be to do the work in such a manner and at such a saving, and show such results, that the question would be not as to who wished to join the associations, but as to who the associations would take in; for all who become members of the Exchange have to submit to the positive rules of the same. Remember, and do not confound the terms Exchange with that of associations. The latter is made up of an association of neighbors for the better gathering and packing of their crops. The Exchange is composed of representatives, one from each Association. Every grower is in reality a member of the Exchange. How could we proceed to organize an Exchange? What steps should we take? To this I will say that nearly all present are orange growers, and among us we have a large number of enterprising, loyal men who could be appointed by this Society for the purpose of forming an organization. They would proceed as follows: Say three be chosen to go
to California and fully familiarize themselves with the workings of their Exchanges and Associations. The Californians send you through me an invitation to come there, and they will warmly welcome and aid you. Get a copy of their Articles of Incorporation. The California Fruit Exchange is an open book, and they are with us and are very anxious that we organize, which would mean much to them, and do away with our glutting and ruining every market within our reach. You never hear of a glut of California oranges. They were willing to give me a copy of their Articles of Incorporation, which I have, also by-laws governing several of their associations. This Committee would return and report to their fellow members. The next step would be to secure a lecturer and organizer—a teacher; the same one who did the work (or nearly all of it) for the Californians. (I was told by their President he thought he could be had.) Set him at work and as soon as half a dozen neighborhood organizations were effected, proceed to incorporate the Florida Fruit Exchange. And, by the way, we have now in this state quite a number of these local organizations, which are ready and waiting to organize an Exchange. This work would go on very rapidly and with a positiveness of success, as we would have all of the experience of our California neighbors, the full benefits of their system, from beginning to end, which has cost them thousands of dollars and five years of hard work.

After a great deal of study, I am in favor of an organization in Florida, with the California organization as our pattern. We must do this if we wish to remain in the fruit-growing business for profit; if we wish to avoid the greater calamity which confronts us. Conditions are becoming worse every season, and the coming season will experience worse gluts and rotouts in the markets than ever before. Not that there is too much fruit; no. We cannot grow too much fruit. That is not the trouble, and is not a fault to be remedied. The faults are these: Too great an expense is allowed to accumulate upon our fruit between the tree and the consumer. This is an old song, but we are going to remedy it. I speak again with positiveness, for where our pocketbooks are touched, the same thrust pierces our hearts also.

We are going to organize and that, too, soon. The time is at hand, and within five years seventy-five per cent. of our crop will be handled in a business way, and the same per cent. of our expenses will be cut off.

It may seem like a big undertaking to get us in line, but it would not be. But it must be done by men with an honest and pure motive, with no graft to be anticipated, for none can exist. If I were a young and strong man, I would be only too glad to do this work for the good of our state, and could do it with but very little money to start with.

Dr. Richardson—I have been very much interested in these papers and the discussions. While they have all been instructive and beneficial, it does not seem to me that any suggestion has reached the bottom of the situation. What the Harts and Sampsons and Inmans and the rest of the men...
can do as individuals, does not benefit the average grower. These gentle-
men have found out how to raise or-
anges and how to contend with the
natural and unnatural enemies of the
industry and meet them successfully.
They represent themselves and per-
haps five per cent. of the orange grow-
ers outside of themselves in the state
of Florida. Let me tell you how the
situation is in my own neighborhood,
and I think it is a typical neigh-
borhood. Seventy-five per cent. of the
fruit grown in that neighborhood is
neither picked nor packed nor mar-
keted by the grower. The buyer
comes in and he hires men to pick it
and pack it and ship it. The men that
we have to hire to do this work for
us are a set of irresponsible men, and
if they got their just deserts they would
all be hung. I can't stay to see my
oranges packed. I have got rea-
sonably fair prices for my oranges and the
men who have bought them have suf-
f ered perhaps more than I have. Why
do we sell our fruit this way, though?
Why are we compelled to sell it to
people who have no interest in his
reputation as an honest grower, whose
only idea is to sell the fruit at the best
possible price? It is simply because
of the lack of co-operation; simply
from lack of willingness to exercise
confidence in our neighbor and fellow
man. When I talk to my neighbor
about co-operation for our mutual
good, he simply draws into his shell
and says, "My business is my own, and
your business is your own, and if you
will leave mine alone, I won't bother
yours." Now, we know what is
the proper thing to do, but how are
we going to get seventy-five per cent.
of the growers to know what we know
and what should be done for their
own good? It is bound to come after
a while, as Dr. Inman says. It may
not come in his time or in my time,
as he has so unkindly intimated that
he and his contemporaries are past the
first flush of youth; but it is to the
gentlemen who are on the platform—
Prof. Rolfs, Dr. Sledd, and the others
—to whom we must look. It has to
be done through education. It must
be taught to the coming generation;
not only horticultural and agricultural
methods that will be successful, but
they must be taught that intelligent
co-operation is the only way to make
a success of the orange or any other
business. We expect you to teach the
coming generation how to do this, but
we know you can't do it alone. We
cannot get all the orange growers to
come into this association, and how-
can we teach them to pack and ship
oranges to get the best results?
Through education. That is the key-
note, and until we educate them up to
seeing their own interest and realizing
the fact that "united we stand, and
divided we fall," we never can expect
anything in the way of results. What
does the man coming here from
Cleveland or Baltimore or New York
care about our success or our reputa-
tion? He wants to get the most he
can out of the crop. We have to pay
his expenses and, in fact, everything
comes back on the grower. The only
way to restore Florida's reputation as
the best orange-growing country in
the world, is to co-operate with that
end in view. Send out men to organ-
zize local organizations, and let the
members of these local organizations
obligate themselves to practice methods that will protect us all. Let us bind ourselves together in organizations that will hold, and then we will succeed.

Dr. Inman—I also want to tell you that under the California organization the man who produces ten boxes and the man who produces a hundred boxes stand on a parity with the largest growers in the association. This organization is not incorporated for the purpose of making money for itself. It never pays dividends. The men who operate the California Fruit Exchange are salaried men. They are employed by the association. I would not advise our people to organize an association here in Florida except on this strictly and purely democratic basis.

As Dr. Richardson has said, we are supporting too many men at too great an extravagance.

Mr. Reaves—I just wanted to ask Mr. Inman to explain a little further. We had experience down at Sarasota some years ago. We had an Orange Growers' Union in this state then and local unions were organized, one at Sarasota and one at Oneco. I was president of the one at Sarasota and felt so much interest I also attended the meetings at Oneco. The union saw the necessity of properly distributing the fruit and for that reason they had adopted the fruit exchange as a medium through which to ship. In order to get the fruit properly distributed we tried hard to get all the growers to ship through the exchange; we knew that fruit shipped to commission men was not properly distributed. One prominent shipper at Oneco said that he had a good commission man and he was going to ship to him. Another shipper by the name of Marshall hesitated, but finally joined and shipped through the exchange. When the returns came, the man who had shipped to his commission man said, "Well, Marshall, how are your returns? Ha, ha; mine are way ahead of yours." Marshall looked at them and said, "Doggone the Fruit Exchange, the Orange Growers' Union and the whole business; I am going to ship to commission men after this." Commission men are sharp enough, and if they see that things are going against them, they are willing to make a little concession. His commission man saw the point and he used his opportunity to do us up there. Of course, a lot of the men who were shipping through the Exchange could not see through the little scheme and said to themselves, "Well, if the commission men give so much better returns, we will ship to them after this and let the Exchange go." That one man broke up the whole thing; everybody went back to patronizing the commission business.

The time has been when commission men were necessary, but I believe that time is past. We have rapid communication to all points to which we ship, which makes it possible for us to sell if the commission business were out of the way, and I believe if this Horticultural Society would co-operate with the Association in California, we could get a United States law against the commission business. As it is, hundreds of growers may ship to some one point, the market may become glutted and prices correspond-
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ingly low. In many cases, we all know it would be cheaper to let the crop stay in the field to make fertilizer than to ship it.

Dr. Inman—If you people would only be in earnest about forming this organization, we would not have as much to contend with as the Californians did. Prof. Powell, in two months, would organize the state of Florida into as solid an organization as that of California, if you would only co-operate with him. There is no question about the commission men bucking hard and trying all their methods and schemes, but they will be very easily overcome if you listen to the advice of men of ability and experience like those in California. They have driven the commission men out of business out there. There would be no trouble to get these men of ability; the trouble is to determine definitely and positively what we want. I don't want you or ask you to take my investigation of the matter. Send some men out there to see for themselves and make you a report. The fruit exchange is composed of such men as Dr. Richardson, Mr. Boardman, Mr. Skinner, Mr. Hart and all you other gentlemen whose names I do not know.

Mr. Sampson—Don't you think we need it particularly this year? What price do you expect the buyers are going to offer for fruit if there is not some better methods of packing? I think one great need is to standardize the packing.

Dr. Inman—So do I. I don't think it would take very long to organize if we can strike while the iron is hot. We ought to be able to know every year that we are going to have a good fruit market and that we are going to get our money for the crop with the least possible expense.

AFTERNOON SESSION.

Professor Rolfs—We had this morning a little talk about packing and shipping oranges, and Dr. Inman and some others cited the methods that were employed in California in preparing the fruit for market and shipping the oranges. It was suggested that you, Mr. Tenny, be requested to give us a little talk about the organization out there.

Mr. Tenny—I will not talk long now, since the society asked me to give a paper this evening on a somewhat similar subject and as this will require nearly an hour I do not wish to weary you this afternoon. The Doctor has possibly given you an impression that the organization that has been known up to a couple of years ago as the So. California Fruit Growers' Exchange, now known as the California Fruit Growers' Exchange is a pretty large affair. This year they are shipping approximately sixty per cent. of all the oranges and lemons from Southern California. This great organization did not come into being at a single stroke. It has been a growth. Its beginnings were back about 1895. The organization grew out of the fact that it was realized that the citrus growers were not independent of each other, but dependent, especially as to marketing of their fruit, with regard both to a systematic distribution of the fruit over the ship-
ping season and to the geographical distribution. The Exchange has grown steadily from 1895 when it handled about one-third of the crop until the present time when its shipments amount to something like sixty per cent. No better account of the workings of the exchange can be given than is found in Bulletin 123, recently published by the Bureau of Plant Industry, Department of Agriculture, which says, "Among the co-operative organizations, the California Fruit Growers' Exchange packs and sells through its own district agents in the markets somewhat more than fifty per cent. of the entire citrus crop. This organization is formed to regulate the distribution of citrus fruits throughout the country and to give to its members, the benefits that arise from its co-operative efforts of various kinds. This Exchange represents about 4,000 growers, who are organized into more than eighty local incorporated associations, the primary function of which is to prepare the fruit for market. The associations in the different producing regions combine into one or more local incorporated district exchanges or selling agencies, which sell the fruit through the district agents or at public auction and receive the money therefor through the medium of the California Fruit Growers' Exchange. There are thirteen of these district exchanges. Each local district exchange selects a representative to act for it on the board of directors of the California Fruit Growers' Exchange, which is an incorporated body acting as an agency or clearing house for the district exchanges in the marketing of their fruit and which operates for the growers without profit to itself. It takes the fruit of the district exchanges after it is packed, and with their co-operation and advice places it in the different markets of the country, sells it, collects the proceeds, and turns them over to the district exchanges, which in turn pay the growers through the local associations. The California Fruit Growers' Exchange is the agency through which the grower is able to control the larger business problems and the general policy of the handling and marketing of the citrus-fruit crop."

This description gives you a good idea of the management of the general exchange; but you may be interested in a more detailed account of the relations of an individual grower to the Exchange and the way his fruit is handled. A group of men, possibly one hundred or it may be a much larger number, living in a certain locality form an association. They build a packing house and elect a general manager, who has the running of the house. The shipping season is divided into periods varying in length from two to six weeks, and these periods are known as pools. As the fruit of the individual grower comes into the house it is usually weighed; at the time of packing, this fruit is put into the several grades and each grade is weighed automatically. A record is kept of the individual loads, and this gives the weight of fruit of each grade. At the end of the pool the total amount of each grade of fruit shipped from the house is determined and also the selling price of this fruit. In this way, the manager is able to determine what each pound of fruit of each grade
for that pool is worth. He is then able to figure the amount due to each grower contributing fruit for that pool. By this method of shipping fruit under brands selected for each grade, the individual grower loses his identity as far as the market is concerned, when the fruit is graded.

Mr. — What has been the result?
Mr. Tenny — It has been satisfactory. The fact that the Exchange has grown from handling a small portion of the crop to sixty per cent. shows that it has been successful.

Mr. — What per cent. of California is Southern California in the shipping of fruit?

Mr. Tenny — This year the state of California is shipping somewhere in the neighborhood of 30,000 cars of oranges and lemons. About 2,000 of these come from north of the Tehachapi Range of the Sierra Madre Mountains. The largest plantings are in Tulare County, and these plantings are sufficient so that under favorable conditions 10,000 cars may be expected. Some co-operative houses are in operation in this section.

Mr. Skinner — Is the exchange still growing?

Mr. Tenny — Yes.

Mr. — What is done with the other fruit not included in the sixty per cent?

Mr. Tenny — There are several large co-operative houses that are not connected with the California Fruit Growers' Exchange. Then there are certain individuals who ship direct to eastern markets. There is also considerable buying by eastern men who have their fruit packed in private houses.

Mr. — About how much does the cost of maintaining this organization tax the grower? How much per box?

Mr. Tenny — I can't give you that figure, but the tax per box is not large.

Dr. Inman — It is about five cents a box, if I remember correctly.

Dr. Inman — Are you able to give the figures showing how much the organization has been able to save its members by the purchase and transportation of supplies?

Mr. Tenny — No, I cannot give these figures either, but I do know that the saving has been very large. They have been able to secure a rate on box material that is very satisfactory from the growers' standpoint.

Mr. Reaves — Do you think it would be possible to have the same organization run on the same principles in Florida?

Mr. Tenny — No, I doubt if an association exactly similar to the California exchange could be worked in Florida. The scattered condition of the orange sections in Florida make it harder to co-operate. The industry in Florida appears to be more in the hands of the packer and the shipper rather than in the hands of the grower. I see no reason, however, why a co-operative body of shippers or shippers and growers could not be made successful in Florida. The essential feature would be to have people that are willing to work together. The success of such an organization depends very largely on the character of the men who are selected to be at the head. These need to be high-class business men, who, of course, will
Mr. Tenny—No oranges except the culls are really sold at the packing house. If a person wishes to buy fruit from any individual packing house, f. o. b., he can make this purchase through the agent of the exchange. Of course, in all these matters, the managers of the individual houses are consulted and, to a very large extent, they determine where their fruit shall be sold.

Dr. Inman—When a person wants to come into the exchange, is it done for the life of a crop or for a series of years? For violating the rules it costs them a penalty of about fifty cents a box. It ceases to be boys' play. A man might become dissatisfied, but it would make no difference about the marketing of his fruit. The association of packers come in, and take his fruit just the same. That is the better way; not to be bothered at all by the individual growers.

Mr. Tenny—As I understand it, any grower may withdraw from the exchange house at the end of any fruit season. I would not be sure about this matter, however.

Mr. Griffing—Does the local association look after the picking or just the packing of the fruit?

Mr. Tenny—The usual method has been for each individual grower to do his own picking. Recently, however, we have been doing a good deal of work on the methods of picking and we find it much easier to eliminate injuries made in the picking when the association does the picking than when it is done by the individual growers. When the house picks the fruit, it is possible to obtain an efficient foreman, who properly superintends the picking.

Dr. Inman—The packing houses are run under perfect discipline. Each man has a certain work to do and pays strict attention to business. It is just like clock work. There is no racket at all.

Mr. Griffing—Do they have much trouble with labor?

Mr. Tenny—They have all sorts of labor. There are many Japanese, Chinese, Mexican Greasers and a good many hoboes. Women do a large portion of the packing. The Chinese are also used in the packing houses, but not much in the fields. The field work is done largely by the Japanese, Mexicans and whites.

Dr. Inman—The wrappers were getting 2½ cents per box. Some were paying as high as 2¾, and it was a rare instance where the limit of three cents was paid for the wrapping.

Mr. Skinner—How many boxes per day will the average packer pack?

Mr. Tenny—I have seen packers who would wrap and pack over 100 boxes. A great many wrap and pack from seventy to seventy-five.

Mr. Hart—My experience has been that the packers will only average about fifty boxes per day. I consider that good work for an average packer.
That is about the limit of my pack. It costs me about four cents a box; that is an allowance of $2.00 per day for packing. If the packing went up to the average of the California packer it would cost me about $4.00 a day for packing.

Mr. Von Engelken—Is the grower expected to clean his fruit when it is infected with scale or other diseases?

Mr. Tenny—All washing and brushing of the fruit is done in the packing house. Practically all the fruit is run over brushes which clean it of dust. In case the fruit has to be washed in the packing house, this is charged up extra against that lot of fruit.

Mr.—Did the Department have anything to do with the organization of the exchange?

Mr. Tenny—We have had nothing whatever to do with the organization of the exchange and have done no cooperation with the exchange other than what we have done with individuals. The fact that the Exchange handles its own fruit and handles such a large quantity of fruit has made it advisable for us to do a large part of our experimental work in their houses. We have shipped much fruit, however, in cars that have been packed by individual shippers, or in co-operative houses that are not connected with the Exchange.

Dr. Inman—Through what agency was the fruit exchange organized and put into operation?

Mr. Tenny—I cannot give you the details of the organization of the exchange.

Mr. Reaves—Does the Exchange use the commission men in any way?

Mr. Tenny—All sales are made through their own agents or at auction.

Mr. C. L. Reaves—I located in Manatee county in the vegetable and fruit business in the spring of '74. I have orange trees that are nearly forty years old from which I shipped the first fruit, and have been shipping fruit from them ever since. When I settled in Manatee county near the Sarasota Bay in the spring of '74, I had only $15.00 in money and no property at all. Now, I have an orange grove, a little stock farm coming on (about eighty acres); I have a store and the postoffice and my credit is good everywhere except with my wife. I must tell you about that. At the time I was married, I married a lady down here, there was nobody in the country except cattle men, and they were having very little work done and it was hard to get money in any way. I gave $11.00 for oranges to get the seed and managed somehow to get rid of the other four dollars, so that I did not have any money. I had a little muzzle loading rifle that was almost the only property I possessed. I pawned that to get money for the preacher. My wife had forty dollars and I borrowed money enough from her to pay for the license, and she declares to this day that I have never paid it back. I don't believe now she would lend me money to buy license to marry any women.

Now, about the vegetable growing and shipping. I have had experience along this line as well as the fruit business. I don't expect to say very much about the growing of it; that would be enough to take up all the time. I would advise anybody who goes into
the vegetable business to first try to learn the methods of doing it right. Now, the shipping is the main thing. I remember yesterday one gentleman said, in telling about the rules posted in his packing house, that one of them was that his brand must be an honest brand. If you can make your brand an honest brand, you can sell your fruit and vegetables and you don't need commission men to sell it for you. Now, you know the commission men do not sell direct to the people very much. The commission houses I have seen sell only at wholesale. About the only good they do you, is to have you dump in your stuff and then they show it for you.

One day I was in Bradenton in company with some of the best fruit and vegetable growers. They were talking about the shipping of tomatoes. One fellow said, "If I ship my tomatoes, I would like to put up good stock in good shape. If I were selling here, it would not make so much difference." Another said, "Well, I don't know so much about that. I think if I were selling here I would like to put in good stock, because I would like to build up a good reputation at home." I listened to these men and was amazed. Not an honest expression. It was simply a question of doing right because it was good policy. Not a single one said he was going to do right because it was right. That is what we should do; we should make our fruit and vegetables something that can be depended upon; make it so that when anyone buys from us, they know they are going to get their money's worth and they are going to be done by as we would like to be done.

I asked several questions yesterday while we were talking about the California Fruit Exchange, with a view of finding out their methods. I learned that sometimes this Fruit Exchange sells the fruit at auction where it is an auction town, but if not, they sent a man all the way from California to sell the fruit, which is expensive. Not only that, but when they send a man they have to trust that man to some extent, just as we have to trust commission men. I noticed some time ago that there was a man in the United States Treasury Department who had grown old in the service, having been there since he was a young man, and had established a reputation for honesty. In some way, he got into a little tight place and there was a $1,000.00 bill missing out of the Treasury. One man came very near paying the amount back because the suspicion was directed to him. A lady learned the truth about it, and the guilty man finally acknowledged having taken it. What we need to do, is to arrange it some way so that we will not have to trust anybody only just as far as business methods go. It is asking too much to found an Exchange and put men in charge and find some among them who will not work to their own advantage. There is bound to be graft in any organization, and we will have to pay for it.

In Manatee county we have men who for years have been buying, packing and shipping fruit and vegetables. The rule in their packing houses is "Honesty." They have built
up a reputation for honesty. They use the wires, which is less expensive than sending a man. They get a man to buy, and when the man sends an order they ship the car and send a sight draft on the man’s bank, with the bill of lading attached. If the man who gave the order will honor that draft, the fruit is his, but if he won’t honor the draft, he can’t get the fruit. The shipper is notified by wire and he at once places the fruit with some other man. They sell it right from Manatee county, and they get their money, too.

I have had considerable experience along that line. Some years I sold everything, some years have shipped to commission men, and the years I have sold are the years I made the money. I have known some men to get rich in a year sending to commission men, but, as a rule, they have come out at the little end of the horn. In many cases, they use rented land, pay rent, pay for fertilizer and pay for labor; then after they have a crop they ship it hundreds of miles away to a man they know nothing about and say to him, “Take my stuff and do just what you please with it. Send me some money if you can.”

Last fall, one of the best tomato producing men in that part of the country, who had as good land as there is, decided to raise a little crop. The weather was dry, and we didn’t raise very much, fortunately. We got about 400 boxes and they were carefully put up and carefully selected, and vegetables were quoted pretty high. We shipped to several commission men and they all said, “Your fruit came in bad condition;” or this, that and the other; and after shipping about four hundred crates, we had to foot the bills, but the returns we received were just a little more than enough to pay for the crate material. It would have been better for me to have let those tomatoes rot in the field.

The question with us is, whether the commission man is a necessity at the present time. I think the time has been when he was. One man said yesterday, “I think it is necessary to have the commission man to buy the fruit.” Now, if that is the commission business, I am in favor of it; but what I understand to be the commission business is for a man to sit up and ask the people to send him goods on the consignment plan, and if you send them to him he shows them to the public, sells them if he can, takes his commission out, and sends you the rest, if there is any. If he does not sell it, he loses nothing, but you do.

I believe the commission man hinders our business. For instance, you want to buy fruit in one of the cities and you invest in a car of it. You buy from a commission house and they don’t know and you don’t know what is going to be dumped in within the next few hours. You pay your money and in a few hours perhaps a dozen cars of fruit come in, and what are you going to do? You have spent your money and the fruit is on your hands and perhaps no market for it. The commission man is going to put you out of business if he can.

We buy goods frequently from the manufacturer instead of the middle man, and why cannot the people buy direct from the grower instead of
through a commission man, who is going to get a profit from both sides? Down where I am, there used to be a large number of alligators. All we knew how to do with the alligator skins was to buy them and ship them to commission men. Of course, freight would be so much, commission so much, available portions of the skin so much, and we never could tell just what we were going to get for them. Now we don’t have to do this. I have here a letter from a certain firm who are getting alligator skins direct from the merchants. They guarantee us a certain price for a given length of skins.

I think that nine-tenths of the fruit and vegetable growers patronize the commission business; perhaps even a larger percentage. The Bible says, “Lead us not into temptation.” This commission business will lead us to do wrong, and it certainly leads the commission man into temptation. I have known many a commission man who had enough consignments in one season to set him up in business. And, as I have said all along, though the time may have been when the commission man was necessary, that time is past, and it is up to us to discover some way that we can get along without dealing with him.

One man sent well-gotten-up letters and quotations to all the growers in South Florida and offered the shipping agent at Sarasota a large percentage of his commission to solicit consignments for him. A lot of our most intelligent shippers sent oranges to him. He sent quick returns and large checks, which caused us to think that he was all right and we shipped him more oranges, but his checks proved to be of no value. Mr. Montgomery, of Palmetto, Fla., let one of his checks go to protest and employed a lawyer in the city where the commission man was located to try to collect something; but he failed. Then I reported him to the Post Office Department for using the mails for fraudulent purposes. His case was presented to the United States Court at Macon, Ga., but they neglected to subpoena the witnesses to go before the grand jury until the statute of limitation was nearly out and then they did not give us time enough. I was the only witness that got there in time and they said that one witness was not enough and that the time was too near out for them to subpoena us again on that complaint, but that he had been reported later by a man near Jacksonville, which would give us another chance. The next time, my subpoena got to my postoffice the day that I was to be in Macon. I sent them a telegram at once that I would be there and took the first train, but when I got there the grand jury had adjourned, so the whole thing was lost and nothing accomplished.