wanted. We decided that if we couldn't buy it we'd build it.

"Tree limbs removed by trimming caused us difficulties 18 to 20 years ago. Even then burning was a problem, and we devoted considerable effort and expense to finding a solution. Eventually, the chipper provided the answer. Production began in 1948, and the plant, now part of 145,000 sq ft. of manufacturing facilities under roof can turn out all the chippers needed for our company and our customers.

"Now we're trying to figure out what we can do with tons of chips a day. Mulch for ornamental plantings has been the best use."

Development of Spiralloy Booms

When the first aerial devices appeared on the market, they had one common and very serious drawback —a lack of insulation.

A few years ago as Asplundh toyed with a glass-like cylinder while visiting with Rex Vogan, executive vice-president of manufacturing, he noticed its apparent strength as he tapped the desk. "What is this stuff, anyway?" he had asked. The material, he was told, consisted of glass fibers wound spirally and criss-crossed in diamond fashion and held together with epoxy. The sample had been left by a salesman several weeks earlier. "Did you think of making a boom for a line lift out of it?" Asplundh asked next. Vogan confessed he hadn't, but the question initiated the search that led to a major industry first-the insulated Spiralloy boom, made for Asplundh by Haveg Industries, a subsidiary of Hercules, Inc.

The upper boom protects the man in the bucket; the lower boom insert, men working around the base of the truck. A boltaron covering, since been developed, made of 1/16in. of white plastic over 1/32-in. of red. If the boom is hit, the red calls attention to possible damage. While Spiralloy is lightweight and has the strength quality of steel, Vogan explained, if several fibers are severed, strength could significantly be reduced. The insulation quality might also be impaired.

Production of lift units began in 1958, first for Asplundh's own use and then for utility customers. Initially, customer orders for truck bodies and lifts were built to individual specification. Some still are; but to speed delivery and streamline production, the Chalfont, Pa., manufacturing plant began turning out standardized units, designed by the plant's full-scale engineering and design department.



At any given time, six to 10 forestry or general service units are parked in line, ready to roll at the jingle of a phone and twist of the ignition switch.

Biggest User of Own Product

Chipper popularity has risen rapidly, and units are sold to tree A most recent sample of Asplundh's continuing public relations program is this environmental management folder. Entitled "We're Partners in Environmental Management," it is directed to utility executives and others. The folder contains specially prepared articles by authorities in the field of chemical spraying on rightsof-way, reprints germain to the subject of ecology gathered from some of the nation's top manufacturing experts, and reprints of editorials written by some of the country's leading magazine editors. Copies are free by writing Asplundh.

men, park commissions, municipalities and others.

Though 80% of the lift truck and chipper production is sold to outside purchasers, "our biggest single customer is ourselves," said Vogan. "So if we have any problems, they come home to roost."

"We gain more test experience in





A new low-cost utility lift and a rugged right-of-way vehicle have just been introduced by Asplundh. The compact utility lift truck falls in the less than \$9,000 price range. It's easily operated by one man. The IL-24 has controls in both basket and at pedestal. The lift can operate at heights up to 24 feet to bottom of basket and inside radii of 14 feet. The boom operates in either direction continuously through 360 degrees. For more information, circle (724) on the reply card.

Mercedes Daimler-Benz AG in Germany has named Asplundh to be its East Coast Sales agent for the all-wheel drive Unimog. The unit is called ideally suited for right-of-way spraying. Independent wheel power is achieved through differential locks on both axles which can be switched on or off, front or rear, as required. For more information, circle (725) on the reply card.

a week with our own units than any one of our customers would in a year," observed Asplundh. "It has to be good. If our equipment stops, we don't get paid."

"In a year's time," added Vogan, "we get two million hours of chipping alone in our own operations."

Behind the Color Orange

Lift trucks and chippers are painted in the color a customer wants, but all Asplundh units are a bright orange—and there's a number of stories behind the color selection.

"Carl's story was that during his football days at Princeton, he noticed how big the Penn State players looked in orange, so he wanted the equipment to look as impressive," said Lester.

Lester had occasion to make the same observation, as an All-American fullback for Swarthmore College. He later played professional football for the Frankfort Yellow Jackets, who became the Philadelphia Eagles.

"Actually," he said, "we recognized the visibility of orange as a safety factor."

On Pesticides and Environment

Lester Asplundh heats up quickly when the subject gets around to pesticides and environmental improvement. The company was a pioneer in using chemicals along rights-of-way.

When 2,4-D was patented as a weed killer in 1944, Asplundh Tree Expert Company envisioned its potentialities as a brush killer and established a research relationship with its patentee. 2,4,5-T evolved and it has been used by Asplundh for more than 20 years.

Speaking of the herbicide critics, Asplundh charged that "some of them just don't know what they're talking about. We've never encountered any insurmountable problems." Its use is still authorized for rights-of-way.

"We're convinced that we have a responsibility to improve the environment. We trim trees to look as well as we can make them, and still give people electric service. Let a blackout come, and see what people prefer.

"There will be some problems with chemicals. We're doing dormant season spraying to avoid browning of leaves in the growing season. But give us a swath of brown for one year, and that's all that will be necessary. We're convinced that the proper use of chemicals is not going to harm the environment."

What people must come to understand, he concluded, is that society must achieve "a balance between economics and environment."

Objective for the Future

Lester Asplundh agrees with another company man who observed that Asplundh Tree Expert Company is a different company today from 10 years ago. More new operations were begun during the period. Though manufacturing has developed quite rapidly, and "the glamour is in the equipment, the job is still trimming trees, said Asplundh.

"Our primary business was, is, and shall continue to be line clearance. Our aim for the future is to continue to search and investigate other phases of utility functions where we can serve."

Lester Asplundh tells of the change he has seen in another way.

Many years ago at a Washington Christmas party, a utility official sought him out. "Your company is causing me some problems. A farmer-customer says one of your crews dumped brush in his gulley and left it." Asplundh assured him the crew would return and clean up the brush.

Some years later, at a similar Washington party, the same man, then chairman of the board, approached Asplundh again. "Your company is causing me problems again," he said. This time, the cause: "One of my associates says he can't get enough of your chips."





New activities include the service of laying utility and telephone lines underground and detecting trouble spots in lines above ground with "Thermovision." The latter service, an Asplundh first, uses infrared to detect hot spots and deteriorating and faulty installations along transmission lines. Thinking caps are in place now to consider all ways that wood chips might be utilized. To date, the best use has been as a decorative mulch for tree and ornamental plantings where mowing is not possible or not feasible.



Florida Tree Company Suggests Method of ...



Bucket Operator Rescue



EDITOR'S NOTE: Staff members of Farrens Tree Surgeons, Jacksonville, Fla., have developed a procedure for rescuing a worker who comes in contact with high voltage lines. The technique has since been modified and adopted by the Florida Industrial Commission. Gerald E. Farrens, vice-president of Farrens and of Sepsco Services, Inc., reported the procedure to the National Arborist Association meeting in February. We felt the method deserved wider dissemination. Following is the procedure:

SAFE PRACTICES AND RESCUE

1• All wires should be considered energized at all times. The operator should never touch the wires with his person, tools, or any part of the boom. If the work is sufficiently close to the wires to constitute a hazard, then request the utility to cover conductors in the immediate work area.

2. Do not touch, mount or dismount, or allow employees or the public to contact the truck body or chipper when operating the unit near conductors.

3. Only authorized and competent personnel are permitted to operate the unit. The foreman is advised to have at least one additional person familiar with the controls in the event the operator must be removed from the danger area.

4. Before going aloft, the operator should make a complete survey of overhead conditions to familiarize himself with the location of lines, poles, buildings, tree limbs, guys, or other obstructions which might present a hazard to the operation.

Keep bucket upper and lower boom away fromwires. In some states, it is illegal to operate

any device within six feet of energized wires.

6. If contact is accidentally established between the boom and a power wire or charged telephone wire, strand, or cable, always bear in mind that the entire truck and its contents may become electrically charged. If this happens, break contact immediately, or, if not possible to do so, alert everyone on the ground not to attempt to enter or leave the truck or touch any part of it while on the ground.

7. Should a bucket operator become unconscious due to contact with energized wires or tree parts, you must assume that the entire truck, as well as the ground in the vicinity of the outriggers, is also energized.

3. To gain quick access to the controls and minimize personal danger in lowering the victim, take a running start and jump onto the running board of the truck from at least six feet away, grasping the west coast mirror frame with your hands. Make certain you do not touch the truck and ground at the same time. Where it is not practical to jump on a running board, jump on the chipper from at least six feet away and move over the truck body to the controls.

9. Once on the truck, move quickly to the controls, lower the bucket and victim away from the energized wires and to the ground (as an alternative, remain on the truck and manipulate an outrigger).

10. Remove the victim from the bucket and lay him on his back in a position to administer mouth-to-mouth resuscitation and closed chest heart message. Clear the victim's mouth and tilt his head back to clear the air passages. If the victim does not breathe, seal his mouth with your lips, hold his nostrils closed and blow in breaths strong enough to cause his chest to rise, at the rate of 12 times per minute. If for any reason it is not possible to remove the victim from the bucket immediately, mouth-tomouth resuscitation should not be delayed but should be administered while the victim is being removed.

11. Check the victim's pulse for a heartbeat by pressing two fingers lightly along the windpipe. If the victim has no pulse, it will be necessary to administer heart message in conjunction with mouth-to-mouth resuscitation. To administer closed chest heart-massage, locate and place the heel of one hand on the lower half of the breastbone. With the other hand on top, apply sufficient pressure to depress the lower half of the breastbone $2\frac{1}{2}$ " at the rate of 60 times per minute or five times between breath blown into the victim's lungs.

12. As soon as possible, summon medical assistance. Send a crew member for help while others administer heart message and mouth-to-mouth resuscitation.

13. Steps 3, 4, and 5 will be practiced at least once each month. Steps 6 and 7 will be explained in conjunction with practice. Each new employee will become proficient in mounting the truck and lowering the bucket, steps 3 and 4, on the first day of his employment.

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By RAY GUSTIN, JR. Gustin Gardens, Inc. Gaithersburg, Md.



MAINTENANCE: Stepchild of Landscaping

THERE ARE THREE children in our landscape family. We've named them "Design, Construction, and Maintenance."

Design is a well-organized character. He possesses much talent, great artistic ability, many original ideas—some not too practical, perhaps—yet necessary. By and large, he is respected by the public and by the rest of the family as being capable of great accomplishments.

Construction is the one we probably understand best. He has a very practical sense of direction, possesses great engineering ability, likes to see things done efficiently. He does not always get along too well with *Design*, but because it's all in the family their differences usually can be resolved.

Then there is *Maintenance*. Sometimes the other members of the family deny his existence, as though he were illegitimate. Sometimes he is tolerated, but seldom embraced. This is why I've entitled this discussion: "Maintenance—Stepchild of Landscaping."

It seems that people who write specifications and people who have contract authority don't realize that plants are living things that need good care after planting. Present methods parallel the man who's in the hospital for a delicate surgical operation. Proper diagnosis is performed, skillful surgeon engaged, sophisticated equipment used. Great care is taken to prevent infection and the operation is successful. Then almost before the patient is out of the anesthetic, the doctor says: "You are fine. Get dressed and go back to work!"

I'm afraid that's the way we sometimes treat plants.

In Maryland's beautification program involving millions of dollars, most federal money was appropriated for highway planting. Not one cent of that money could be spent for landscape maintenance. Efforts to change the allocation to include post-installation care failed.

Plants take quite a beating in transplanting operations. Feeder root damage in digging. Transportation hardship. Unfavorable planting conditions. Planting delays because of construction halts.

Add to this the possibility of poor soil conditions and you can begin to understand the amount of shock a plant must overcome to fulfill its intended purpose.

Plants want to live. After working closely with them for nearly 50 years, I freely confess an affinity for them. Probably this is why I crusade for better plant care.

Bid Maintenance + Cost

Let's separate landscape maintenance from landscape construction. These activities should be performed separately by different people with special skills.

We have got to convince architects and others that write job specifications that landscape maintenance is a cost item and should be so bid.

You and I may be bidding the same job, for example. Let's assume you bid to make an allowance of 15% for maintenance and guarantee. I figure a smaller amount, or none at all. Perhaps I figure the Good Lord will take care of maintenance. I get the job on a lower lump sum bid. You can see what might happen. The job may not look too well in a few months.

Plants can look really sick before they either die or start moving ahead. If planting was one bid and maintenance an alternate bid, I believe the contracting authority would be in a much better position to compare bids and the jobs, with properly scheduled maintenance.

At a recent meeting of the Associated Landscape Contractors of America, architects expressed a desire to somehow obtain better landscape maintenance. They are artists, and they want the finished job to look the way they had pictured it.

Separate Maintenance Crews

How do you implement the concept of separating landscape construction and landscape maintenance? Here's how we're doing it:

We had realized a lot of our jobs weren't looking too well. Ones we could point to with pride often were those where the client had good maintenance people taking care of his property.

Too many of our jobs looked well immediately after completion, then looked pretty horrible a few months later. In these cases, maintenance was entrusted to unskilled labor, such as janitors, porters, or others who knew little or nothing about plant care.

Prior to establishing a landscape

Spray-paint TRE-HOLD[®] after your 1970 pruning

and cut trimming costs in 1971!

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maintenance service, we made landscape replacements with our regular landscape crews. The usual procedure was for the customer to report dead or dying plants. This call might come in the spring when our planting crews were scheduled beyond capacity. Our office would likely tell the customer we were busy but would take care of it next time a crew was in the neighborhood. This could go on for several weeks and after a half-dozen calls. Result: We've lost not only what



had been a satisfied customer but also perhaps many of his friends.

To improve service, we added a maintenance section, separate and distinct from our construction division.

Our landscape maintenance section is designed as a follow-up service to our planting operations. This is a gardener's job, and we have been fortunate in securing the services of a trained gardener with many years of practical experience in growing plants. Such men are scarce. We brought ours from England. You only need one such man, and they can be found.

Maintenance Crew Functions

Our landscape maintenance crews are small, consisting of two or three men equipped with proper tools for maintenance. Work includes such services as pruning, spraying, tightening of guy wires, feeding, removal of dead plants and making replacements, renewing of mulches, checking root conditions for drainage or aeration, etc.

When a planting job is completed, a copy of the job sheet is given to the maintenance superintendent. The job is scheduled. We try to give the first inspection and service about one month after the planting is completed. We plan to give at least two additional services during the year. We make a point to see the client each time a service is performed. We've found it beneficial to give him a report, plus tips on such things as watering. Quite often the client is interested in additional planting, in which case the landscape salesman is notified.

One big plus we failed to fully recognize when we started the service was the big improvement in customer relations. Clients sometimes are actually shocked to see us appear on the property to check back on our jobs without them having to call us.

What about the economics of the concept?

Maintenance and guarantee are cost items and should be built into

every job. In these days of close competitive bidding, it is important to keep this cost to a minimum.

We know our clients, or most of them, realize they have made a substantial investment. They feel inadequate to give the plant material the care it needs to keep it alive and looking well. When we used to pull off from our jobs, I believe we left some customers with a big question mark and a little worry.

I believe many of our customers are willing to pay well for good maintenance. If we are unable to provide it, we have not met our responsibilities. This is particularly true on industrial and commercial properties where general maintenance is a budgeted item.

Unless maintenance is contracted for at the time of installation or contracted for at the completion, our gratis service is limited to inspection and replacements where needed. Since organizing our maintenance section, our replacements have dropped greatly.

In most cases, our maintenance is seasonal, and does not include such services as grass cutting, frequent watering, snow removal, etc. There For September: CROWNVETCH

are exceptions. Maintenance contracts are fairly easy to sell, and at a good price. We charge just as much per manhour for maintenance as for our other operators.

We keep accurate records on work performed by our maintenance section. We know what it costs in labor, equipment and materials. We know that the profits on the work we get paid for exceeds the cost of the gratis work of inspections and replacements. We believe the end result is a better service, improved customer relations and perhaps most of all puts each branch of service in its proper perspective.

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... about how much better and more economical our chippers are than anything else they've used. Of course, we design and build them that way. The heart is the 300-pound flywheel and high-speed, tapered blade which chew smoothly, inexorably, through the work material with the safe flexibility that only Asplundh's special engineering features can provide.

Don't take our word. Ask for the specifications brochure "Asplundh Chippers to Fit Your Need" and for a free, no-obligation demonstration. You'll see why an Asplundh Chipper is best for you . . . and as good as you'd expect from the world's largest tree expert company.





By W. E. MATTHEWS The Southern Tree Surgeons, Ltd. Crawley Down, Sussex, England



I ALWAYS HAVE A FEELING that Americans imagine Britain as one huge garden populated by ancient rustics, kept in order by benevolent policemen with funny hats; and guardsmen who all lodge in Buckingham Palace.

Certainly we have all this, but as I learned on a visit to last year's International Shade Tree Conference in Portland, the problems of the arborists both in Britain and in America are extraordinarily alike. Everything from business administration to public relations, to staff problems has exact parallels.

The main thing we do not have is your magnificent equipment. Perhaps if we had your tax system, enough money could be left in companies for capital outlay of this kind.

Not much interest was taken in preserving trees in England until after the last war. This was odd because the English tradition of horticulture was very strong and in fact the many fine gardens that were being made had trees and shrubs brought to them from all over the world. They flourished in our temperate climate, so well in fact that this has been given as a reason for the complacency regarding their upkeep. The philosophy was why worry when all is going so well.

The odd gardener and esate owner attempted crude methods of bracing when the need was very obvious.