

BAY AREA WOODWORKERS ASSOCIATION

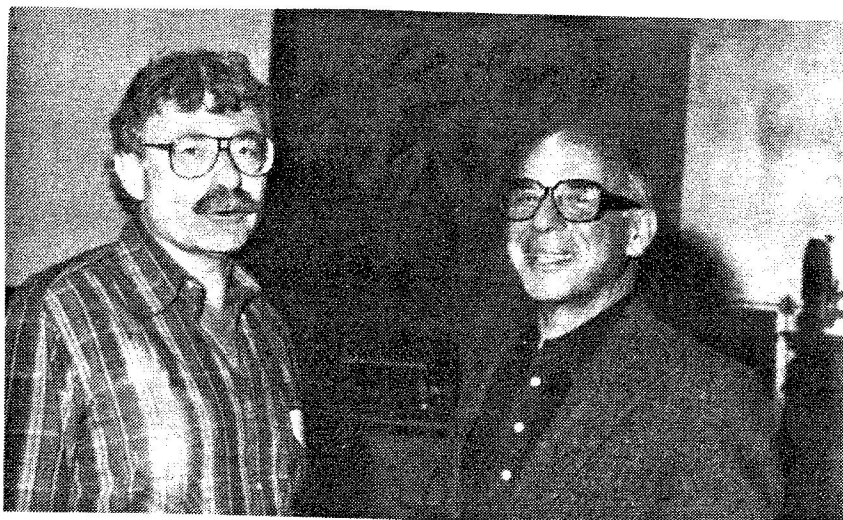
June 1987 - Vol. 6, Issue 6

Box 421195 San Francisco CA 94142

THIRD THURSDAY PREVIEW

The general meeting will be held this time only, on the FOURTH thursday, June 25th, at 7:30pm at Steve Madden's shop, 957 63rd St., Space D, Oakland. Phone is 654-3332. To get there from San Francisco, take the Bay Bridge and get on I-80 (880) north. Exit at Powell St., Emeryville and turn right on Powell. Continue to San Pablo Ave. and turn left. Continue to 63rd St. and turn right. Go 3 blocks to the corner of 63rd and Lowell. Park. 957 is a single story gray and maroon warehouse. The roll-up door will be open. Enter and follow signs. From points north or south, take same freeway exit as above.

Several things are planned for the June meeting. This is our election meeting and all members are urged to attend to cast their vote. We will also have a tool swap, so bring in any tool or piece of equipment which you'd like to sell. We will also have a show-and-tell on jigs, so bring your favorite jig and share it with us. Steve Madden will show us around his shop and will spotlight some of his work in progress. There will also be a representative from the Acoyapa Building and Woodworking School in Nicaragua who will tell us about their project. See you there.



CHAIRMAN LARRY BORSIAN AND GUEST SPEAKER SAM MALDOOF AT THE MAY MEETING. TURN THE PAGE FOR A REVIEW OF THE MEETING. BAWA WISHES TO THANK MR. MALDOOF FOR GENEROUSLY DONATING HIS TIME AND SHARING HIS EXPERIENCES, EXPERTISE AND PHILOSOPHIES WITH US.

photo by Terry Ward

FOR YOUR INFORMATION

New to the East Bay: The Hardwood Resource, 988 Howe Rd., Martinez, (415) 372-8171. Over 20 species of domestic, imported and exotic lumber in stock. Veneer and lumber core hardwood plywood, including Finnish Birch. Oak mouldings, custom milling. Mon-fri, 7:30-5, sat, 8-3.

Cal Oak Lumber Company in Oroville, California has offered BAWA a tour of its mill and facilities. This field trip requires a minimum of 10 people and would occur on a weekday. The excursion could be expected to last all day. The primary interest of Cal Oak is in the sale and promotion of indigenous California hardwoods including Black oak, White oak, Madrone, Fremont cottonwood, Black walnut, Sycamore, Maple and Tanoak. Anyone interested in this field trip should let us know as soon as possible so arrangements can be made. The date is not yet set.

Senco in Hayward is having a 30% off sale on nailers and staplers. Their phone is 537-1900.

HIGHLIGHTS FROM LAST MEETING

Report on General Meeting Featuring Sam Maloof, May 21

Before Sam Maloof gave his presentation, there was a brief business meeting. Candidates for BAWA offices at the June elections were mentioned (note: anyone wanting to run for an office is certainly welcome to do so. This presentation of candidates by the sitting chairman was not a statement of a list of approved candidates, but was a listing of those who offered their names to the chairman, as had been the call at the previous general meeting). The treasurer's report showed a healthy balance, along with the word that it should be so: we are now halfway through the year to which our dues are pinned. However, if you owe, pay. Although the newsletter has grown we still need more advertising and more copy: please create both. Tim Kennedy is progressing on the hoped-for BAWA roster. John Grew-Sheridan warned about bleaching cherry-wood with lye, as had been presented in FW. After a brief break, the more than 80 gathered in Larry Borsian's and Cynthia Huntington's shop heard Sam Maloof.

Sam spoke and presented slides for nearly two hours, starting with smiling thanks for being invited. He recounted his personal history: graphic art and furniture making since high school, but nothing like the "formal" training that some now consider necessary. "People tell me I don't do anything right: I accept it," he said. On something more important: "I think my graphic artist background helped me with design. . . I think design is inherent; good design can't be taught." During his slide presentation, what became apparent to me was the beauty of his forms and the simplicity of the means he used to achieve them. Such a definition of course invokes an ideal of classical perfection, and Sam stuck to this ideal of severity in speaking harshly about woodworkers, especially chairbuilders, whom he considered to have as major interest not function: "Except for Gary Bennett's pieces, most of the New York Craft Museum show's pieces had a *sameness* to them. . . no matter how beautifully a chair is made, if it isn't comfortable, it isn't a good chair."

Sam expressed a view that he represented one side in an ongoing debate about woodworking in the USA, the other side being populated by those who painted their woodwork and differed from him in other basics, perhaps centering around the end of woodworking, which he advanced as utilitarian and craftsmanly, not "Fine Art." I was reminded of the very practical faith in Reason of Sam Johnson: "Sir, any artist who does not work only for money is a blockhead." He expressed delight in being sought-after by museums to supply them with his creations. More engaging was his delight in showing slides of his own creations as they exist within his home, which is, among other things, the locus of his non-commercial woodworking. Again, he outlined his credo of simplicity of means, flowing line, and the warmth of natural grains, all holding out against the encroaching suburbanization and standardization that has eaten up the lemon groves around him.

He ended by taking part in a question-and-answer period, which was not terribly adoring and was often about the business of woodworking. He does the rough work on all of the pieces that come from his shop; 90% of his pieces are of walnut. He works mostly by eye. His glue is the white glue from the nearby hardware store he has gone to for forty years. After an exchange with a BAWA member (to be developed below), he showed that he is a fellow with strong convictions. He ended his moving presentation by reading the epilogue from the book on him, Sam Maloof, Woodworker: "God is the Creator of all things." We may not see his like again, unless he returns. Sincere applause ended the evening.

-Bob Greenberg.

CLASSIFIEDS

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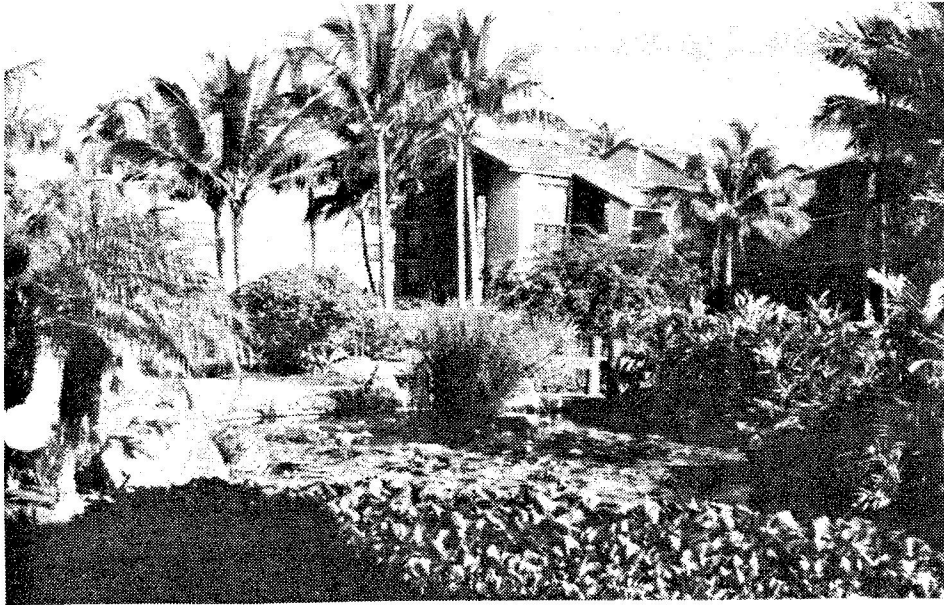
SHOP SPACE, north Oakland near Berkeley, 1300 sq. ft., live-in building. Next to 2 other woodworkers, share some facilities? Call Rob, 652-0426.

FROM THE EDITOR

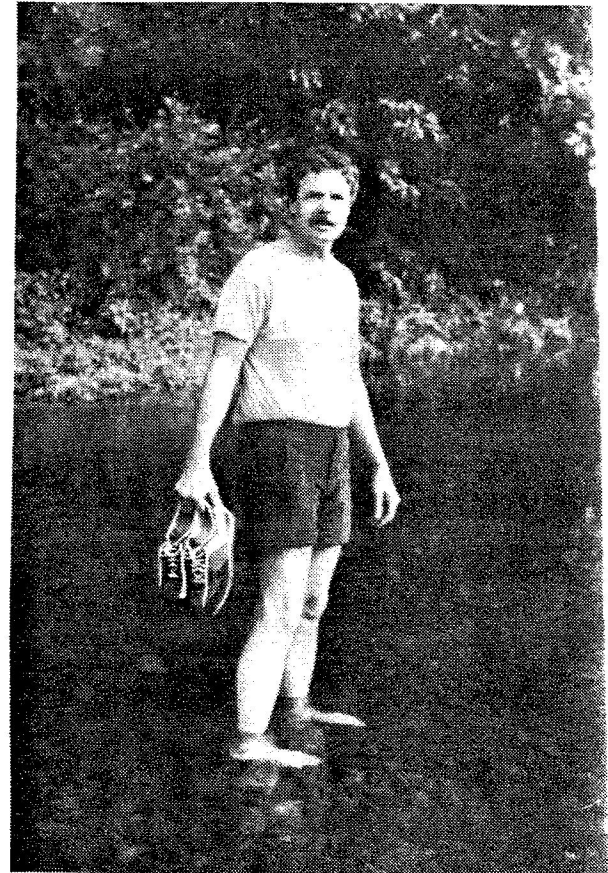
There are other things to attend to and other roads to travel and so, after a year and a half as editor of the newsletter, this is my last issue. I'll work closely with my successor to provide a smooth transition and will continue to be available as a consultant, if needed. Also, I expect to continue to write articles and submit them to the newsletter.

During the past 18 months, within the limits of my time and ability, I've tried to maintain the newsletter as a meaningful part of BAWA. I hope that its arrival in your mailbox has been looked forward to. I leave this job with mixed emotions because, although it has been time consuming and at times difficult, it has also been extremely rewarding because it has put me at the very heart of the organization and its membership. I'll miss that position even though it will be much easier to not be there. But I've experienced, as few others have, a fine organization with some terrific members, and there's a priceless quality to that experience. Now it's time for me to take a little vacation and turn the BAWA typewriter over to someone new. I've kind of grown to like that machine. Maybe I'll buy one just like it. My best to all of you.

Peter Good



Above: Your editor's vacation place on the island of Maui.



Right: Your editor wandering through the Hawaiian jungles in search of koa.



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A VISIT WITH SAM MALOOF: PERSONAL IMPRESSIONS

I recently took a few days off to attend the Woodworking Machinery and Supply Fair at the Anaheim Convention Center. This facility is located conveniently across the street from Disneyland, which is a comforting bit of knowledge since machinery shows can get a little dull. While I was there, I thought I might visit Sam Maloof, who lives about 45 minutes away. After a while, when CNC routers, edgebanders, moulders and laminate presses all started to look the same, I called Sam from the Convention Center to see if I could get a breather from interesting, but nonstop machinery. To my delight, he told me to come on over.

Sam's house, which he made himself, sits snugly in the middle of an orange grove a bit east of Los Angeles. The setting is tranquil and seemingly apart from time, although this little grove is threateningly surrounded by encroaching development in the form of a sea of houses under construction. But, for a while, I forgot all that inside Sam's home, workshop and lumber storage complex. Sam Maloof is an open and gracious person and spoke freely about himself and his work as he gave me the grand tour. In his home, the evidence of his artistry and craftsmanship as a woodworker is everywhere. It can be seen in the soft curves of the window casings, the humanistic scale and layout of the spaces, the honesty and solidity of the construction and the creativity of the meticulously handmade wooden door latches and hinges, which somehow bring a smile to one's face. But, most of all, the talent and craft of Sam Maloof can be seen in his furniture which fills both his house and his shop. Chairs are Sam's greatest love and his crowning achievement. At 71, this man is as industrious as many men half his age. In his shop, looking at the piles of roughed-out parts and batches of partially done chairs, I wondered how he could even take the time to talk to me. Sam explained the evolution of the design of his chairs and showed me numerous examples of the subtle refinements of line and joinery which he has incorporated in his pieces over the years. In describing Sam Maloof's furniture, the word that comes to mind is sensual. Somehow, it all just looks right and feels right. The tables are the right height, the right width and the right length, whatever that is. The chairs are comfortable; the kind you can sit in for a long time, and when you want something to drink, rather than get up, you ask somebody else to get it for you. The backs of the chairs seem to be just the right shape to fit the body, and if your head needs a rest, there's a smooth, rounded one right there in what couldn't be a better position. There are also some interesting surprises here. Chair upholstery need cleaning or repair? What a relief to find out that the upholstered areas on Maloof's chairs are cleverly designed and executed so that they quickly and easily snap out. No tools or effort required.

The beauty of Sam Maloof's furniture lies in a skillful blend of simplicity and intricacy. No part of his designs could be labeled excessive or wasted, and yet there are numerous subtle surface features and construction details which show that his pieces have been carefully and highly refined. Sensuality in Maloof's furniture extends beyond comfort and visual beauty. It's as though his pieces bore an invisible label saying, "touch me", because one's hands are naturally drawn to them, exploring the smooth curves and recesses and discovering the ingenious continuity of the hard, but sometimes almost imperceptible lines. The experience of sitting in a Sam Maloof chair becomes complete when the man himself is sitting opposite in a relaxed discussion of his work, his life and his experiences. This is a man who has achieved recognition and importance in the simplest and most honest way: By being himself. Here is a man who lives and works harmoniously with the elements of both nature and civilization. He has appreciation for his own talents and abilities and the materials he works with, and respect for those who recognize his special efforts and seek to be in the presence of his work or his person. Both Sam and his work radiate a quality not found often in our daily lives which causes us to reflect on human achievement within the context of harmony with the earth. Such a balance is rare indeed, and one which we all might give a little more thought to.

Peter Good

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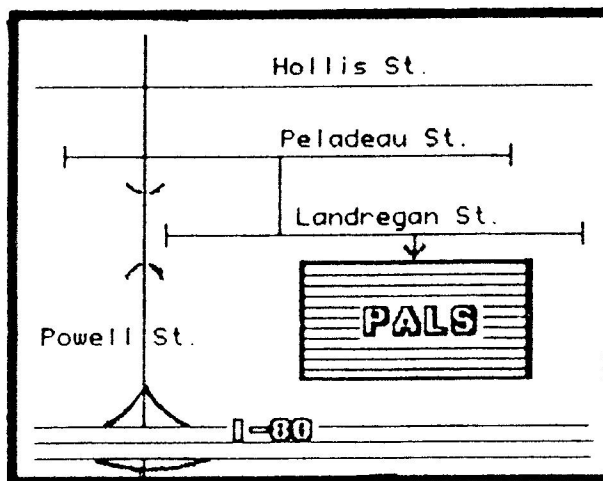
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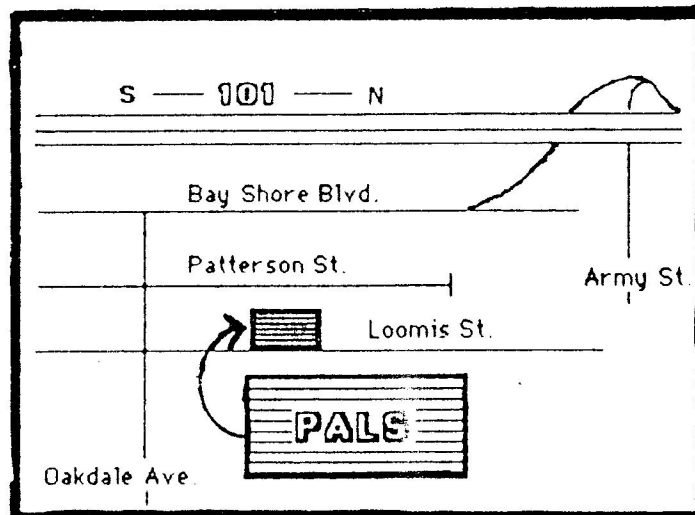
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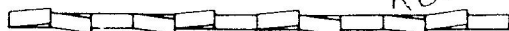
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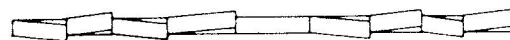
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DEALING WITH MENTALLY DISTURBED CUSTOMERS: PART II

ACTUAL CASES

by Peter Good

As I mentioned in part I, the trouble with mentally disturbed people is that we often can't identify them as such until we're already involved in a contractual arrangement with them. The cases presented here are real. Only the names have been omitted.

Mr. P. appeared to be mentally sound when I first negotiated a remodeling contract with him. He lived alone in a rather ordinary house and was an attorney in his late 40's. There was one unusual thing: Mr. P. had had polio in his 20's which left him a paraplegic. Perhaps it was partly due to this disability that Mr. P. was one of the most unkempt housekeepers I have ever seen. Unwashed dishes and clothes strewn everywhere. All level surfaces littered with papers, books, newspapers, dirt and discarded frozen dinner trays. This place needed massive cleaning.

The remodel called for a variety of things including wall removal, fireplace installation, built-in cabinetry, sheetrocking, floor replacement and a few other things. About a three month job. Being a person with strict toilet training, I'm a tidy worker. I can paint a whole room without getting a single drop of paint on my hands or clothes. When I work, I often clean up the debris as I go along. Anyway, a woman friend of Mr. P.'s came to his house about once every two weeks to clean up after him and do his laundry. It was apparent to me that the relationship was nothing more than that. Mr. P., however, who had very little to recommend him, somehow got the distorted idea that this woman was attracted to him. So he went out and bought her a diamond engagement ring. Before presenting it to her, he proudly showed it to me. I felt sorry for the man and wanted to tell him that he was totally off base about this woman, but I decided to stay out of it. As I expected, she was stunned with something other than joy when he gave her the ring. She promptly gave it back and ran off on an impromptu vacation in Hawaii, with another man. Undaunted, Mr. P. sent flowers to her in Hawaii several times. When she returned after a couple of weeks, she had sufficiently regained her composure to tell Mr. P. that this whole thing was a mistake and that her only interest was in helping him clean house.

About this time, the remodeling job was coming to an end. Mr. P. approved the work and I asked for final payment. He refused to pay, saying that I had ruined his personal and social life by taking too long to complete the job, and that the resultant disruption had turned the woman off to him and the idea of marrying him. It was at this point that I came to the full realization that I was dealing with a severely disturbed person. Furthermore, he said that if I pushed the matter, he would take it to court (remember, he was an attorney in a wheelchair), would have five other lawyers support his case, and would remind the court that I was (at that time) an unlicensed contractor. Mr. P. made it abundantly clear that he would go to any length to avoid paying me. One characteristic of mentally ill people is that it may be impossible to reason with them. With Mr. P., all of my attempts failed. I was never one to stay on a sinking ship and decided to bail out of this one before the craziness got any worse. I left, never went back and never got paid. That was the end of it.

The case of Mrs. M. was quite a different story. This was another remodeling job involving a variety of things, some of them rather odd, like a sink base cabinet to be installed in the living room. Well. I shouldn't say, "installed", because this sink cabinet (of the kitchen variety) was to be mounted on casters so it could be rolled around, although I can't remember why. The faucet was to be mounted on the wall above the sink and the drain consisted of a p-trap coming out of the wall below the sink and, get this, instead of connecting to the sink, the trap was to have a funnel sitting in the top of it which, when the cabinet was rolled into place against the wall, would be poised underneath the drain tail pipe in the bottom of the sink. You have the picture? So the sink cabinet, which had no back on it, could be rolled away from the wall without disconnecting anything, leaving the faucet and drain trap all by themselves on the wall. Don't ask me why.

But wait, you haven't heard anything yet. Mrs. M. had a serious germ phobia. She always walked around with her hands held up about shoulder height like a surgeon preparing for an operation, and she kept plastic bags over her hands. Most of the time she only touched things through the plastic bags. Furthermore, I was not permitted to touch the walls or any furniture in the house. She was afraid I would contaminate things. I had to do such things as install the sink faucet on the wall without touching it, ever. I thought this would be quite a trick, but Mrs. M. worked the problem out by completely wrapping the faucet in plastic so that only the threaded water line connections were exposed.

In one room, part of the work involved painting an old fir tongue and groove subfloor white. Mrs. M. was quite upset when, even after several coats, the cracks between the boards were still visible. I tried to explain that this was an old floor and the wood had shrunk a bit with time and that this was actually only a subfloor and was supposed to be covered with some kind of proper finished floor. She didn't want any filler used for some reason and insisted that I keep repainting the floor until the paint finally filled in the cracks. Also, she let me know that my head would roll if I got even a speck of paint on anything but the floor. Thank goodness for strict toilet training!

There were other curious things about Mrs. M., like the fact that she kept a loaded rifle leaning against the wall next to the front door, even though there was nothing in the house worth protecting. Then there was the large shower room in the basement with eight shower heads, and only one person living in the house, and I never saw any evidence of any guests.

The kicker came, as it generally does, when I completed the job (yes, friends, I stuck with it) and asked for final payment. At this point, Mrs. M. sat down, closed her eyes, put her hands together and said, "Let us pray", then went silent. I stood there in alarm waiting for her to come out of this state, which she soon did. She said that she had received divine guidance in this matter and was "advised" to pay me only half of what I was asking (even though we had a detailed contract specifying all of the work, cost and terms of payment). At this point I walked out. Several days later, Mrs. M. was served with an official notice from the court that I had filed a lawsuit against her. She called me and asked me to come over to discuss things. I did, but was careful to stand aside as she opened the door, remembering the rifle. She had reconsidered and decided to pay all but two or three hundred dollars. I sensed that she had a cash flow problem and decided it wasn't worth pursuing the matter, so I took what I could get, dropped the suit and permanently parted company with Mrs. M.

Did I ever tell you about my customer who has double cylinder deadbolt locks on all of the doors in the house, both interior and exterior, even though there's nothing in the house that any thief would want, and that I'm called regularly to rekey the locks? He also thinks there's something evil living in his furnace room. I checked it out but couldn't find a thing. Well, maybe I'll save that one for another time.

In all of the cases in which I've dealt with disturbed people, they started out appearing reasonably normal and it was only after the job was under way that I realized there were some serious irregularities. If you've never worked with people like this, boy, do you have some surprises coming!

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FROM THE CHAIR

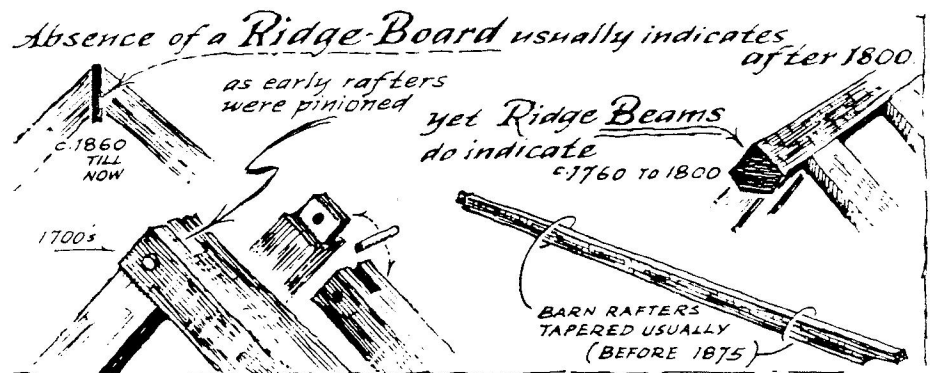
This is my last month as Chairman of B.A.W.A., and I want to thank the wonderful group of people that make things go; this generation of moving spirits in B.A.W.A. I thought when we persuaded Sam Maloof to address the group, that that would be the high point of my term; lots of happy faces, and I'd slide out gracefully. But for those of you who attended that meeting, you'll remember that at least one of our members wasn't so happy; John Grew-Sheridan felt that Sam's negative remarks about some of the recent design trends in furniture were one-sided, and he was somewhat annoyed. Mr. Maloof, in turn, didn't care for the tone of John's comment. Then John, who had had no more than half a sentence to an hour or so for Sam, decided to elucidate and support his views in a letter to the newsletter. Being the kind of man he is, he also sent an immediate copy to Sam Maloof. Mr. Maloof didn't like the letter any better than the remark; he didn't want us to print it. So the Executive Group, the officers of our club, got together to decide what to do.

After a turn around the room, with everyone expressing their opinion, it seemed clear that there were two possible views. First, that Sam Maloof was our guest, an almost overwhelmingly popular guest, and was due the courtesy of a guest, an older gentleman, and his position in the cabinetmaker's world; we should therefore not print the letter, and hope that all would die away as quickly as possible. The second view was also reasonable; John was not pleasant, but certainly not rude; he disagreed with many of the aesthetic pronouncements of Mr. Maloof, and has every right to say so; and if he wants to say so in the newsletter, who in the world has a better right? He edited the newsletter and simply gave it life for several years. Many groups would have voted at this point. We didn't. Nobody was happy with these alternatives. Everyone in the room had real respect for the men in dispute. To choke John off was unthinkable; but to send Sam the message that we were anything but pleased and grateful to have seen him and his work for an evening was equally unfair. We began to discuss the positive aspects of this little event. Maybe this could be a chance to really discuss what this issue is; to raise the whole thing above personalities to a discussion of the profound aesthetic revolution that is being attempted in the world of furniture design.

So, we have asked Simon Watts, a former editor of Fine Woodworking magazine, to solicit written statements from John and Sam, and to possibly do a short article using that material; to state the question for us, at it were, and make a format to let us hear what these two fine craftsmen have to say. Sam Maloof is a busy man, but I can't help feeling that he might welcome a chance to state his views; those that heard him speak know that he has definite opinions on the subject.

I like what our group decided to do; and I think that it's a better decision than any of us could have come up with; (I must admit that John suggested that Simon Watts would get involved if we asked). I think that we all work in a fairly lonely trade; we become accustomed to making our own choices, standing alone behind our work. B.A.W.A. gives a chance to make a little contact, to listen up, to grow. As I leave office, I'm a little wistful; I can't wait to see what happens.

Larry Borsian



CHANGE ORDERS

Walter W. Stoeppelwerth, Publisher,
Home-Tech Publications, Bethesda, Md.

It is generally accepted in remodeling that you can sign a contract with a relatively tight margin and make fat profits on change orders. This is an industry myth.

Change orders can eat your profit away. They interrupt the rhythm of the job while they are priced, written up and melded into the production schedule. Meanwhile, the workers wait around, thus raising the labor cost on the original job. There is an administrative cost to notify subcontractors of the change, change purchase orders and alter the budget for the total job.

A job with change orders also pushes back the completion date, making it rough to schedule—and keep the schedule for—future jobs.

And think about this. With change orders you are in effect isolating costs on individual items for the customer to review. If you charge a healthy markup on a change order, it is likely that the customer will recognize what the margin is and think you have overcharged for the main job as well.

Finally, many contractors do not have the discipline to stop the job, price the change, write the complete specification and get the customer's signature before going ahead. As a result, they have difficulty collecting the payment for the change order.

Solving the change order problem is relatively simple. First, tell your customers at the outset that you discourage change orders. Give the first few of the above reasons why, and then say something like, "If you have any of those 'while you're here' thoughts about what you want us to do, tell us now before we price the job, or at least before the pre-construction conference. After that, we put a \$25 to \$50 administrative charge on each change order,

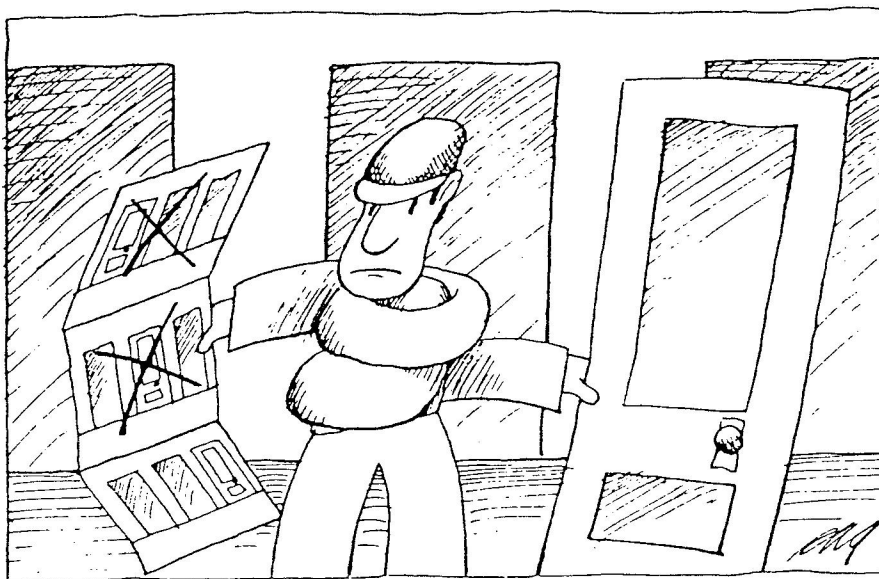


Illustration: Richard A. Goldberg

plus the price of the change."

Several companies have printed up a change order form with the top line saying, "Administrative Charge—\$35," so that the customer understands this is standard company policy.

Change orders should be done on a fixed-price basis rather than time and materials. The common example to explain why is the one about the customer who, during a kitchen remodeling, asks the contractor to move the kitchen door opening 6 inches. When the contractor says he will price it and get a signed change order, the customer waves him off, saying, "Oh, no, just go ahead and do it and bill me for time and materials." When a week later the contractor comes back with a bill for \$300, the customer is aghast. The contractor patiently explains that in order to move the door, the HVAC subcontractor had to make a special trip to move the duct and register; the electrician had to relocate the electrical switch; and the drywall sub had to make four more trips. At this point the customer retorts, "But

it wasn't worth \$300 to me. If you had told me I would have said not to go ahead." All change orders should have a firm fixed price and, if that is impossible, an upset figure should be named before going ahead. Be sure to get a signed change order on every single change. Unsigned change orders normally are not admissible in court and cannot be collected.

Many contractors ask for payment when the change order is signed and before the start of work. Others require payment in full as soon as the change is completed. The latest time to collect is with the progress payment.

Never let change order payments go to the end of the job. By then you'll have to justify change orders that customers have forgotten, and the change orders may be used to negotiate down the final price.

In summary, there is no question that change orders can make an enormous difference in net profits. Handled properly, they can be a great source of income. Otherwise they will be a heavy financial drain. □

JURY STILL OUT ON FORMALDEHYDE'S HEALTH EFFECTS

While OSHA finalizes a new workplace rule, the EPA has begun its own fact-finding mission into what could begin a new round of formaldehyde regulatory activity.

By Rich Christianson

Is formaldehyde a human carcinogen? If so, at what dosage and rate of exposure does one risk contracting cancer from it?

These two important, and still unanswered questions, have fueled a decade's worth of research and controversy concerning formaldehyde's potential health effects. Both questions have also sparked an ongoing debate over how strong a role government should play in regulating this versatile and widely-used industrial chemical — both in the workplace and in the home.

Those in favor of greater government controls, whose ranks include the United Auto Workers and the Consumer Federation of America, take a better safe than sorry approach. They base their hard-line stance, that formaldehyde should be regulated as a carcinogen, on worst case evidence obtained from laboratory animal experiments and epidemiological studies which indicate a possible link between formaldehyde exposure and certain forms of respiratory cancers.

Rising to formaldehyde's defense are the many and varied industries that rely on formaldehyde for the success of their products. Included is the National Particleboard Assn. (NPA), whose members primarily use urea formaldehyde adhesives as a key ingredient to manufacture particleboard and medium density fiberboard (MDF) panels. In fact, it is estimated that about half of all formaldehyde that is made goes for the production of resins used to manufacture these and other composite boards.

William McCredie, executive vice president of the NPA, said that there is no hard-and-fast scientific evidence to warrant classifying formaldehyde as a human carcinogen. Indeed, three independent mortality studies completed during the past year failed to find any conclusive evidence to link workplace or residential formaldehyde exposures with cancer. However, each of these studies also concluded that further research of formaldehyde's health effects is warranted.

In the absence of any indisputable proof, the NPA and other concerned industry associations believe that formaldehyde

should be classified and regulated as an irritant. They argue that proposed mandatory labeling of low-emitting formaldehyde products as cancer causing, would be damaging to public perception and be potentially devastating to several industries, including composite board manufacturing. A downstream effect could cause some furniture and cabinet manufacturers to rethink about the materials they use.

Straddling the fence on this controversy are the various government agencies involved in classifying and regulating formaldehyde based on the weight of the scientific evidence available. Included are: the Occupational Safety and Health Administration (OSHA), the U.S. Environmental Protection Agency (EPA) and the Department of Housing and Urban Development (HUD). Last year, the Consumer Products Safety Commission (CPSC) decided against pursuing mandatory standards for products containing formaldehyde.

OSHA developing new rule

OSHA has targeted September for publishing an updated rule on allowable workplace formaldehyde emission levels.

The issue dividing the disputing parties is not whether current maximum formaldehyde levels in the workplace should or should not be reduced. Both manufacturers and the unions agree that they should be lowered, but they disagree by how much and with what strings attached.

OSHA proposes to reduce the 8-hour time-weighted average (TWA) exposure limit enacted in 1971 from 3 parts of formaldehyde per 1 million parts of air to either 1 ppm or 1.5 ppm. OSHA has also proposed to delete both the existing 8-hour ceiling of 5 ppm and the peak exposure limit of 10 ppm short-term exposure limit (STEL) permitted for up to 30 minutes in an 8-hour workday.

OSHA's proposal also contains several ancillary provisions that would place additional financial burdens on industry including: monitoring, medical surveillance, recordkeeping and hazardous communication requirements. These provisions are endorsed by the unions.

McCredie said the NPA supports a 50 percent across-the-board reduction, including: a 1.5 ppm TWA standard and a 5.0 ppm STEL. The UAW has pushed for a six-fold reduction to 0.5 ppm TWA.

"A 50 percent across-the-board reduction of the current levels is the best, simplest, and most practical approach to the reasonable protection of workers from irritating effects," said the NPA in its written comments to OSHA.

More specifically, McCredie said achieving a 1.5 ppm TWA is both obtainable through current engineering and ventilation technology, and is economically feasible. Meeting a 1.0 ppm standard and eliminating the STEL, however, would present great economic hardships on many composite board manufacturers, McCredie said.

The 1.5 ppm limit is also supported by the Formaldehyde Institute (FI), which is comprised of the NPA and 44 other associations and companies. Additionally, FI has proposed a STEL of 2.0 ppm.

OSHA estimated that 14 affected industries would incur total capital costs of \$60.5 million and annual operating costs of \$28.3 million to comply, including meeting all ancillary requirements.

"This grossly underestimates the true costs," the NPA stated in its comments to OSHA, "primarily because it ignores the hundreds of industries which have very small occupational exposures to formaldehyde and the fact that all workplaces with even miniscule levels of formaldehyde give rise to many of the ancillary duties. If all the workplaces technically covered by the regulation were to comply, the cost would be in the billions."

Edward Stana, director of public affairs for the FI, concurred that OSHA greatly underestimated the costs of meeting a more stringent compliance level. The FI's estimates of OSHA's understatement are illustrated in the table on page 83.

In any event, an OSHA spokesman said the administration's final rulemaking is bound to dissatisfy at least one of the interested parties. "Almost invariably, there will be a court challenge in a major case like

this," he said, "just like we saw with benzene and cotton dust."

Some states are tougher than federal OSHA

Reducing occupational levels to as low as 1.0 ppm is not without precedent. Last year, the state of Washington adopted a 1.0 ppm standard. California and Oregon, meanwhile, have each established limits of 2.0 ppm.

According to Steve Cant, industrial hygiene program manager of Washington's Department of Labor and Industry, "For many years we have felt that the OSHA limit was too high. The major reasons that we tackled formaldehyde were for the health and safety of employees, and because we felt that the lower level was feasibly achievable.... Thus far we haven't encountered any significant problems with industry meeting it."

McCredie, however, noted that there are no particleboard or MDF manufacturing plants in Washington. He maintained that a 1.0 ppm standard would be arduous for a member of his industry to achieve.

Formaldehyde emissions at the press and in the actual product have been "dramatically reduced" in the past few years through the advent of new urea formaldehyde resin technologies, McCredie said. Isocyanates and phenol formaldehyde are two alternatives that are being used, but both significantly increase the cost of board production, he said.

HUD investigating MDF

When HUD adopted a rule requiring that formaldehyde emissions of pressed-wood panels used in manufactured housing not exceed 0.3 ppm, it neglected to single out MDF. Mark Holman, chief of standards for HUD, said this oversight occurred because the agency did not know much about MDF and its emission properties.

"We originally thought it was very similar to particleboard. More recently, though, we have come to think that it emits more formaldehyde than particleboard does," Holman said.

Holman said HUD has applied for \$20,000 from the federal government to fund a computer load analysis of MDF at the National Bureau of Standards testing facility. "We want to study the off-gassing characteristics of MDF," Holman said.

Last year, the NPA adopted a voluntary MDF emission standard of 0.3 ppm with a loading ratio of 0.08. The loading ratio is defined as the total exposed surface area of the product expressed in square feet divided by the test chamber volume in cubic feet.

The NPA, which is a certified testing agency, previously adopted a voluntary particleboard emission standard of 0.3 ppm with a loading ratio of 0.13. More recently, the Hardwood Plywood Manufacturers Assn. (HPMA), adopted several voluntary standards, including one for industrial panels of 0.3 ppm with a 0.13 loading ratio.

McCredie said limiting emission levels in MDF is more difficult than it is in particleboard because the formaldehyde resins can compose 8 to 12 percent of an MDF panel compared to 4 to 8 percent for a

similarly-sized particleboard panel. The higher concentration of resins present in MDF is necessary to preserve the strength and integrity of MDF, which is composed of much finer fibers than those used to make particleboard, he said.

While saying that raw MDF emits more urea formaldehyde than particleboard does, McCredie added that treating one side with a laminate, for example, lowers an MDF board's emission level to about equal an untreated particleboard panel.

"I think we have satisfied at least two agencies (HUD and the CPSC) that we are acting responsibly," McCredie said. "We are doing what is economically feasible by using the best available technology to achieve a reduction in emissions."

Gary Gramp, director of analytical services for the HPMA, said, "The regulatory agencies can only come up with a mandatory standard if there is a void in the industry. Hopefully, our voluntary standards help fill that void."

Holman said any MDF rulemaking by HUD is as much as three years away. "At this point, we are considering formaldehyde as an irritant," Holman said. "Whether it is a carcinogen or not is being left up to the EPA and other agencies to determine."

EPA joins the fray

A spokesman for the EPA's Office of Toxic Substances said the agency is continuing its investigation into the effects of residential formaldehyde exposures. The results of an EPA-commissioned study, dubbed the Vaughn Study, were published in the International Journal of Cancer in December 1986.

Directed by Thomas Vaughn, M.D., of the Fred Hutchinson Cancer Research Center in Seattle, Wash., this epidemiological study consisted of randomly-selected telephone interviews of people or family members of people who have been exposed to formaldehyde either through their jobs or by living in manufactured homes.

The Vaughn Study found "no association between pharyngeal or sinonasal cancer and occupational formaldehyde exposure beyond that which could be readily attributed to chance. However, several factors combined to limit the ability of the study to find such an association, and must be taken into account in its interpretation."

The Vaughn Study did, however, find "a strong association between a history of having lived in a mobile home and nasopharynx cancer (NPC).... The NPC risk was found to increase with the number of years lived in a mobile home. No associations were found between any of the cancers and a history of exposure to new construction containing particleboard and plywood, or to urea-formaldehyde foam insulation."

"The association found with living in a mobile home must be interpreted with caution since it is based on a small number of cases, any may be due to factors other than formaldehyde. This report emphasizes the need for additional studies focusing on potential associations between indoor air pollutants and respiratory cancers."

A greater than expected number of NPC

cases found in the Vaughn study was also documented in a mortality study of occupational formaldehyde exposures released last year by the National Cancer Institute (NCI). The NCI study, however, concluded that its "results provide little evidence that exposure to formaldehyde at levels experienced by those workers increases their risk of dying from cancer."

Nonetheless, these and other groundbreaking studies, though reporting inconclusive evidence and demonstrating the need for additional study, represent the only scientific documentation that government agencies have at their disposal to promulgate rules. And based on this evidence, the EPA spokesman said his agency has classified formaldehyde as a probable human carcinogen.

"We are completing our risk assessment and will try to organize an option selection meeting this summer," he said.

Of rats and monkeys

The government's concern with formaldehyde's health effects was perked by a study published in 1980 by the Chemical Industry Institute of Technology (CIIT). The CIIT reported that about half of the 240 rats in a laboratory study it conducted developed nasal cancer after being bombarded over extended periods of time with doses of formaldehyde approaching 15.0 ppm.

A level that high could not be tolerated by humans for even a few seconds, McCredie said. Yet, the CIIT study and corroborating results obtained in subsequent rat studies by other independent research labs in the United States and Japan, was sufficient to cause many government agencies to make formaldehyde a regulatory priority.

Last year, the director of research at CIIT told Wood & Wood Products that some government agencies might have overstated the conclusions of the rat study in judging formaldehyde as a probable human carcinogen. "The government developed a model that assumed there is a linear response between risk and dosage," said Dr. James Gibson. "Our subsequent research has found that a non-linear relationship exists — that health risks increase much faster as you up the dosage."

Thomas Starr, a scientist at CIIT, said a new institute study involving monkeys should provide researchers with a better understanding of how formaldehyde exposure affects humans because the primate subjects have respiratory systems similar to humans. The study, partially funded through a grant by the Formaldehyde Institute, is to be completed in about six months, he said.

"There haven't been any epidemiological studies of humans that would unequivocally point to the health effects of formaldehyde," Starr said. "There have been some suggestions that exposure can cause some types of cancer but there is no compelling evidence that people get cancer from exposure to formaldehyde. Hopefully, this study will help further our knowledge." ■

PROTECTING YOUR FIRM FROM PRODUCT LIABILITY LOSSES

A former supervisor of Rockwell International's product liability administration offers advice on how to avoid liability lawsuits.

**By Mathew A. Ros, Claims Manager,
Delta International Machinery Corp.**

Are you and your distributorship equally protected from the ever-increasing number of product liability suits which are being brought by consumers and making headlines across the country?

It's hard to be sure, particularly in this day and age when more and more frivolous and unfounded legal actions are being instituted. And particularly since today's plaintiffs are inclined to file claims against any and all parties that have had any relationship to the product. This inclination includes product distributors. And it applies to products sold a week ago, a year ago and even up to 20 or 50 years ago.

Distributors who recently renewed their general liability insurance coverage may be aware of the changes taking place in the insurance marketplace as a result of consumers' growing tendency to sue. Insurance protection is no longer easy to obtain, and when it is obtainable, you pay dearly for it.

The trend toward increased premiums and limited coverages is likely to continue, as is the rising number of lawsuits brought against both manufacturers and distributors. The following general guidelines should provide some assistance in protecting you and your business from product liability losses. They may help mitigate your potential liabilities, tender, or turn over, the defense of an action to the product manufacturer, or at least aid in your dealings with insurance companies and attorneys.

Manufacturers' financial stability

As I have already indicated, it is not unusual for a distributor to be sued for damages caused by a product that is 20 to 50 years old when the accident occurs. Before you can turn your defense of such a suit to the product manufacturer, you need to be sure that the manufacturer is still in business and that it is financially able

to assume the costs of that litigation.

When buying from a manufacturer, you need to determine not only its current fiscal solvency, but also its past history and future outlook. Ideally, it should be capable of remaining in business at least as long as its products are in use.

Jurisdiction for service of tender of defense

To tender the defense of the suit to the product manufacturer, it is necessary that jurisdiction for its service be available, enabling you to serve court papers upon it. This can be a problem with foreign product manufacturers which sell their products F.O.B. (free on board) in their native countries.

If your products came from a foreign manufacturer which does not have an office in the United States, neither the plaintiff nor you may be able to obtain a valid judgement against the manufacturer in this country. In these situations, the

There are no indications that any significant improvements will be made in the current system.

courts and regulatory agencies will place the costs and related responsibilities otherwise expected of the product manufacturer on you, the importer or the distributor. To be protected from such a situation, you must make certain that the product manufacturer is available.

Certificates of insurance — broad form vendor's endorsement

Most product manufacturers carry com-

prehensive general liability policies which contain a provision for a broad form vendor's endorsement (BFVE) which is issued to the distributor, extending the manufacturer's insurance coverage. In order to take advantage of the BFVE, you must obtain and maintain current certificates of insurance from the manufacturer.

Certificates of insurance can be obtained by writing to either the insurance or claims departments of the manufacturer. If it is unwilling or unable to provide a valid certificate of insurance, it is possible that it may not be carrying proper coverage, leaving you open to liability.

Distributor's express warranties

To be in a position to take advantage of a manufacturer's BFVE, and to prevent your own independent liability, you must be careful not to make additional or different warranties or representations concerning a product. For example, one of the exclusions pertaining to BFVE indicates that "insurance with respect to the vendor does not apply to any express warranty unauthorized by the named insured." In other words, you need to make certain that the information given to the purchaser at the time of sale is consistent with the information and specifications pertaining to the product.

If you or one of your sales people indicates that the product can be used in a particular operation or fashion which is inconsistent with the manufacturer's recommendations, it is unlikely that the manufacturer will intercede in the event of an accident to accept the tender of your defense on this issue.

The courts are regarding product distributors/vendors as experts knowledgeable in the wares they are selling. They are also holding distributors/vendors liable for any misrepresentations or warranties pertaining to the use or application of a product. It

PRODUCT LIABILITY

is critical that you make certain that the information you supply to your customers is consistent with the information promulgated by the manufacturer.

Product modifications or alterations

Another key exclusion to BFVE coverage relates to the intentional alteration or modification of the product by the distributor/vendor. If you alter or modify the product (i.e., remove a guard or instruction manual), and this modification results in an injury, it is highly unlikely that the manufacturer will intervene on your behalf. Therefore, it is important to deliver the product to the consumer in the same condition that you received it from the manufacturer.

Distributor's insurance coverage

In addition to the BFVE coverage provided to you by the manufacturer, distributors should also carry the comprehensive general liability insurance for protection in situations where negligence on your part is believed to have contributed to an accident. Based on liability verdicts being rendered by courts and juries, it is recommended that you carry at least a \$1 million liability limit.

In addition to protection from damage, loss or injury, the policy should also provide coverage for your legal and defense expenses. To help keep your premiums down, it should be pointed out to the insurance carrier when the policy is negotiated that certificates of insurance providing BFVE from product suppliers have been obtained and that renewals are being maintained so any product liability losses can be tendered back to them. If possible, you may also want a policy which allows you to choose your own legal counsel.

Repair and maintenance service

If you offer repair service, the courts may find you liable for any improper repair or adjustment to a product which results in an injury or accident (another reason to carry liability insurance). Courts have been ruling that the provider of service is an expert with respect to the product. Therefore, you should bring to the attention of the product owner any safety deficiencies which may exist in the item.

To minimize your exposure and to protect the consumer, you should advise him of any missing guards, warnings or electrical deficiencies which could conceivably result in an accident. To protect yourself further, if your customer refuses to have the recommended safety repairs made, advise him in writing (and keep a copy) by making notations on a repair invoice or attaching a hazards identification tag to the product. In some instances, distributors have refused to service a product unless

safety deficiencies are corrected at the same time.

"Used" or "as is" machinery sales

If you deal in "used" or "as is" machinery, you are basically regarded as a "remanufacturer" of the product. As such, the BFVE available from the original manufacturer no longer applies. In addition, the courts may interpret your "remanufacturing" responsibilities to include conformity to all safety standards pertaining to the products at the time of sale by you. Therefore, it is your obligation as a seller of "used" or "as is" products to make certain that the goods have been properly repaired and have all appropriate safety devices, guards, warnings and instructions. If you sell a "used" or "as is" product without current safety features and someone is injured from using it, you may be named as the principal defendant in any litigation.

Reporting accidents properly

There is a requirement in every insurance contract that the policyholder provide timely notice of any reported accidents to the insurance company. To take advantage of the claims investigation services available from the manufacturer, the manufacturer's insurer, you and your insurer, any accidents, injuries or lawsuits involving one of your products must immediately be reported to the manufacturer's representative and to your insurance company for further investigation.

Therefore, any notice you receive of a product-related accident, even if there is no indication that a claim may be filed, should immediately be reported so specific circumstances of the accident and the condition of the product can be promptly determined. Any delay in the report, which jeopardizes the insurer's ability to properly investigate a suit, can result in a denial of coverage.

In many instances the plaintiff will wait until the statute of limitations is about to expire before filing a lawsuit. In these cases, one to three years may pass since the accident occurred before any notice of a lawsuit is received. This then places the defendant, you and/or the manufacturer at a disadvantage in the investigation.

Keeping sales records

Several states have enacted product liability legislation which provides a statute of repose defense to the product manufacturer and distributor. This statute of repose attempts to identify a time period after which a product is considered to be "safe" from a strict liability standpoint. Most states which have this legislation, in effect, tie the statute of repose to a time period based on the sale of the product to the consumer or the date from which the product was put into use.

To take advantage of the statute of

repose, it is necessary to determine exactly when a product was sold to its first user. Since many manufacturers sell their products through independent authorized distributors, it becomes necessary to rely on end distributors to determine when a particular machine was sold. It is therefore critical that you maintain accurate sales records over a longer period of time than may otherwise seem necessary.

Notifying customers of product safety improvements

Recent case law has indicated that in some situations a continuing responsibility exists on the part of both the product manufacturer and distributor to advise a purchaser of any available safety improvements or modifications. Again, the courts have found the distributor to be an expert or "person of knowledge" with regards to products sold. The courts have also found that it is the distributor's responsibility to share this knowledge with his customer.

Passing along any information pertaining to product safety improvements, product guards, warnings, etc., is to the mutual benefit of the distributor, manufacturer, and consumer. Making certain that a product is being safely and properly operated with all current safety devices should reduce the number of accidents. A reduction in accidents can lead to a reduction of OSHA (Occupational Safety and Health Administration) citations of worker's compensation exposures for an employer, and also to a reduced liability exposure for the product manufacturer and distributor.

Product liability legislation

At this time there are no indications that any significant improvements will be made in the current product liability system. U.S. Sen. Robert Kasten (R-Wis.) had proposed a Federal Product Liability Act (S.B. 100) which was designed to restore some equality to the product liability litigation process. Unfortunately, several amendments have been proposed to S.B. 100 which may negate any benefits the original bill would have provided.

Kasten's act and other related reform proposals set uniform national standards for product liability lawsuits and provide protection for distributors. These proposals have been met with opposition and compromise versions are currently under consideration. At the present time, the U.S. Senate Commerce Committee is reviewing a federal product liability voluntary claims and uniform standards act.

Additional information can be obtained by writing to Sen. John C. Danforth, (R-Mo.) U.S. Senate, Washington, D.C., 20510. It is beneficial for all product distributors to keep abreast of any changes or amendments to this legislation and to write to senators and congressmen advising them of the need for a uniform product liability act. ■

As a world-renowned furniture wood, mahogany is in a class all its own.

By Jo-Ann Kaiser

Richly-colored mahogany is a true furniture wood, prized for its excellent working and finishing properties. It grows most plentifully in Africa and tropical America.

The family of mahogany is divided into two genera. African mahogany is known as *Khaya*. The mahogany of the "New World" is the genus *Swietenia* and is regarded as the original, or true mahogany. This group grows in southern Florida, the West Indies, Mexico, Central America, Colombia, Venezuela, and the upper basin of the Amazon in eastern Peru, Brazil and Bolivia. Mexico, Honduras, Peru and Nicaragua are among the important producing areas. Cuba was once the leading exporter of mahogany, but the island's size limitations and government restrictions have diminished the supply.

Mahogany from the Americas is also known as the genuine mahogany, but the additional names it goes by include Caoba (Spanish); Acajou (French); Mogno (Portuguese); Caobilla and Caoba (Cuban); Chiculte, Cobano, Gateado, Palo zopilote, Punab, Rosadillo, Zopilote (Mexican); Orura (Venezuelan); and Aguano (Peruvian).

Larry Frye, executive director of the Fine Hardwoods/American Walnut Assn., said the often misused name mahogany really only applies to "three authentic commercial species of the wood: *Swietenia mahagani*, *Swietenia macrophylla* and *Khaya ivorensis*, all of the *Meliaceae* family."

Frye estimated that mahogany rates among the top 12 furniture woods in the world and among the top eight in the United States.

"As long as traditional furniture is popular, mahogany will be in demand," said Frye. "It is popular with 18th century, colonial reproductions, French provincial, and Italian. Mahogany and walnut once shared the limelight, but when walnut became scarce, furniture manufacturers turned to mahogany."

In his book, "Know Your Woods," Albert Constantine Jr. writes that before mahogany was used for furniture it was used as a shipbuilding material, at which

time it was mistakenly referred to as cedar.

Mahogany is one of the most valuable timber trees in tropical America, although African is currently the most used of the mahoganies because it is more readily available and less expensive than other varieties.

Frye added, however, that the African government has stopped the export of logs, so its domestic lumber and veneer industries can flourish. Several species of trees come from Africa; the most well-known commercially is *Khaya ivorensis*. Trees from Africa range in size from large to very large, usually 100 to 150 feet tall.

African timbermen usually square the newly-cut logs and remove the sapwood; it is not used and is easily attacked by ambrosia beetles who bore holes in the wood. Both mahogany varieties have wide buttressed bases.

In addition to being reasonably priced, African mahogany is available in most sizes. It is, however, coarser in texture than the American mahoganies and has a tendency to warp more than its American counterpart. African mahogany seasons rapidly, is stable when dry but has less strength than American mahogany, which is high for its weight. Both types are easy to work with using both hand and machine tools and both veneer very well.

The quality of the timber — especially its density, hardness and color — depends on its country of origin. The range of density for American mahogany varies from 25 to 53 pounds per cubic foot with the average about 34 pounds per cubic foot. Color can vary from a yellowish-brown to reddish-brown which darkens after cutting to a deeper reddish-brown, although some mahogany will fade in strong sunlight. While most of the timber is straight-grained, mahogany is also known for its interlocked grain, which can yield a beautiful variety of figures, making it a popular decorative wood. Mahogany has a natural shine and dries rapidly with little checking or distortion. The wood is very stable and is resistant to bending. It is not readily attacked by fungi or bugs, but can be damaged in the log state by pinhole borers.

Mahogany is considered a premier cabinet wood. According to Constantine, cabinetmakers first shipped it on a regular basis in the early 1700s from Jamaica to England, and it was the choice wood for masterpieces of design. These craftsmen found it more desirable than walnut be-

cause it was available in larger widths.

In the "New World," mahogany's use can be documented as early as 1514. Constantine notes that a cross made from mahogany, used to mark the site for the location of the Cathedral of St. Domingo, still stands in very good condition despite the fact that it has weathered four decades in the tropics.

As for its use in furniture, Frye said, "Mahogany has long been an excellent furniture wood. It is closely identified with Chippendale, Adams, and Hepplewhite. It is easy to work with. It polishes and shines beautifully and is a very durable, beautiful wood."

John Grunwald, president of the David R. Webb Co., said mahogany veneer prices vary widely depending on the grade, from 8 cents a foot to 25 cents per foot for a furniture grade and higher for architectural grades.

Grunwald said there is a "boomlet" in sales for mahogany, which was the premiere furniture wood in this country until the 1950s, when walnut, and then oak, replaced it in popularity. He said he has seen a similar rise in popularity during the last five years with cherry, whose fortunes seem to rise and fall with mahogany.

"Cherry, and sometimes walnut, are replacements for mahogany," said Grunwald, "but mahogany will always yield larger sheets of veneer and larger widths of lumber. While it is larger than walnut, it can be more difficult to match. Mahogany is prized for its distinctive crotches and swirls and is used for cabinet and buffet doors and drawer fronts."

Grunwald estimates that 50 to 80 million square feet of mahogany veneer are shipped to the United States annually. While logs were once shipped there for processing, that practice has been all but eliminated because it is uneconomical and many countries now embargo the sale of logs, he explained.

Grunwald said he sees the definite rise in popularity of mahogany and cherry in the last five years as "typical" of the new popularity of all the "red woods."

While mahogany is a well-known furniture and panelling wood, it does have other uses besides furniture and shipbuilding. Because of its outstanding technical qualities, it is well suited for precision woodwork such as instrument cases, printers' blocks, parts of musical instruments and engineers' patterns. In these uses, the straight-grained material is favored. ■

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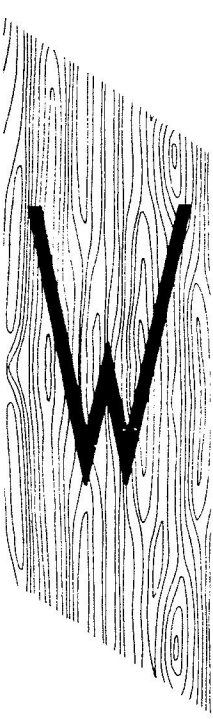
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The Bay Area Woodworkers' Association is an organization of woodworkers who have banded together to promote woodworking in both technical and aesthetic directions. This newsletter is a monthly publication intended to serve as a communications vehicle and a source directory for the membership of this Association.

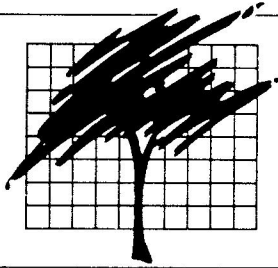
Membership dues are \$30/year, for which any member may participate fully in the Association, in accordance with the guidelines set forth in the By-Laws. This includes voting power on any issue brought before the membership for a vote, notification of the monthly shop talks and demonstrations put on by the Association, receipt of this newsletter each month, and privilege of participation in any special discount programs sponsored by local businesses in conjunction with this Association.

Checks for membership dues may be made out to the Bay Area Woodworkers' Association and sent to P.O. Box 421195, San Francisco, CA 94142. Membership cards will be issued to all members in good standing.

Copies of the By-Laws are available at all monthly meetings, or can be requested by mail.

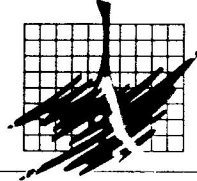
The monthly shop talks and demonstrations are held on the third Thursday of each month at 7:30 p.m., at a location announced both in the newsletter and at the previous meeting.

The monthly executive committee meetings are held on the fourth Thursday of every month, and are open to any interested members. To arrange attendance, contact any member of the executive committee by telephone or the address given above.



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