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During the same period Dan River's Research Department has installed 12 small dyeing machines ranging from 1 pound to 30 pounds per machine.
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**Royce Chemical Company**

Manufacturers of Chemicals for the Textile Industry
In this issue, the staff features the popular electronic computer. Mr. A. J. Crane shows us the importance of this machine to the textile industry in his article "The Use of Electronic Computers in the Textile Industry." I am sure you will also be interested in the short course the Textile Department at Clemson provided for those men from IBM who participated. Also of interest is Mr. Thomas Keith's article on cotton production. This issue, we hope to provide a new service to our readers in the textile industry. Read page 16 and see if this applies to you.

—R. E. W
The Use of Electronic Computers in Textile Industry

By Mr. A. S. Crane

Any discussion of electronic computers in the Textile industry should open with this statement: No amount of high-speed data processing can supersede intelligent management in the successful operation of cotton mills and their auxiliary sales organizations.

Once this is understood, the corollary statement can be made: The high-speed electronic computer system can become the most valuable new tool in the manufacturing and marketing program of a skilled management organization.

One further generalization can be made about electronic computation and record keeping: No major textile manufacturing organization will be able to meet competition in the years ahead unless it shifts to some form of electronic data processing.

With more than 10,000 fabrics and styles in its inventory, Springs found it increasingly difficult to service thousands of customers. The sheer multiple of thousands by ten thousands presented an almost impossible problem in sales, inventories, supplies, and work orders.

Seven years ago the late Col. Elliott Springs realized that further expansion of the Springs organization required a faster, more flexible system of record and data processing. The various electronic computer systems were investigated and finally the International Business Machines Corporation was chosen to tackle the job.

Programming Springs' statistics and problems began in 1954. It was no easy task. The language of the electronic computer required a breakdown of all essential information into yes-no fragments, almost childish in form. At the same time, those of us in training were taught to appreciate that only this reduction of information to basic plus or minus factors would have any meaning to the computer.

There was an overwhelming logic to such a process. We were compelled to face the simple 2-plus-2 realities of complex problems and even before the first computer, an IBM 705, was ordered those of us in accounting and auditing had acquired a new concept of record keeping.

The 705 was never delivered. In the year and a half allowed for training and preparation the IBM 650 was developed and sent to Springs as a system capable of handling our organization's problems for the next five years. The 650 ran out of time in four years. Even though it was operated 24 hours a day, seven day a week, it could not keep up with the programs developed for electronic processing.

Mr. Andrew Jones Crane was born in Central, S. C. He attended Draughns Business College in Greenville, S. C., Walton School of Commerce, Chicago, Illinois, and the Executive Program at the University of North Carolina in Chapel Hill. His experience includes four years of Public Accounting in Greensboro, N. C., and ten years with the Springs Cotton Mills in the capacity of Internal Auditor, Director of Data Processing, and his present position as Controller of the company. Mr. Crane holds a South Carolina C. P. A. certificate. He is a member of the American Institute of C. P. A.'s Controller's Institute of America, American Management Association, and the Rotary Club. Mr. Crane lives in Lancaster with his wife and two children.
In November 1960, the IBM 7070 was delivered to Springs with the understanding that the high-speed 1401 printing and processing auxiliary would be added as soon as it became available. When this was delivered in July 1961, it took over much of the load of mechanical reproduction, releasing the overburdened 7070 for more work in the higher sphere of market analysis, forecasting trends and servicing customers' accounts.

It is in this field that the Springs organization feels the highly developed and integrated computer system will fulfill its brightest promise. It can run a complicated inventory in a matter of minutes. It can handle a weekly payroll for 12,000 employees, making all adjustments for hours, wages, and deductions and printing the checks, in less than two hours.

But these are only the pedestrian advantages of the high-speed computer. It can store an unlimited amount of market information. It can correlate this information with current trends and can come up with a digest or any specific analysis of it on short notice. It does no thinking for management but it arms management with fast, complete information on which decisions must be based.

The 7070 has almost unlimited possibilities in both practical and theoretical applications. It can service all customer accounts, advising them of market trends and spotting deficiencies in their inventories. It can accept an order for 10,000 sheets, calculate the amount and type of raw cotton needed, notify the cotton purchasing agent, transmit the work order, send shipping instructions to warehouse, order the labels and packing materials, and make a thorough inspection of the customer's account and credit rating in a matter of minutes.

It can do this thousands of times a day and handle its jobs, if the proper information has been prepared for it. This preparation of programs for electronic processing is what separates major users of the system from the boys. It required two years to get ready for a computer installation. It required five years of experience to realize the full benefits of the advanced systems now available.

Perhaps five years is not long enough. Here at Springs we are doing things with the computer which were beyond our conception last year. New uses for it are constantly being planned.
This Fall we had an interesting short course in the School of Textiles. IBM looked around and found itself with a group of salesmen calling on the textile industry who knew nothing about the language, processes or problems of the textile industry. They came to us to see what could be done to change the situation.

Working together we organized a three week short course to give a concentrated program in textile manufacturing and management. The program started with raw materials and went straight thru the manufacturing processes, including dyeing and finishing.

Then the subjects of quality control, methods and standards, costing and testing were taken up as separate items.

Different members of the faculty put on the part of the program that fell in their specialty with Professor Campbell having general supervision of the whole program.

Each Thursday night IBM entertained at a dinner at the Clemson House for the members of the class, some IBM visitors and participating faculty and their wives. Mr. Charlie Gibson of B. I. Cotton Mills spoke at one dinner, Mr. Cecil Browning of Greenwood Mills spoke at one and President Edwards spoke at the last dinner.

The group was taken on tours of Lowenstein Cotton and Storage, J. P. Stevens' Utica Mohawk Plant, Lyman Bleachery, Deering Milliken Research, Rocky River Mills of Bigelow, Sanford Carpet Co. and the Gerrish Milliken plant. These tours gave the group a close look at a wide range of textile operations.

There were eighteen in the class. We think it was a great success, beneficial not only to IBM but to Clemson and the School of Textiles. I know that we in the Textile School have a better appreciation and understanding of computers than was the case before this class.
Outstanding Seniors...

By: Steven D. Tucker

Norman C. Guthrie, Jr., age 21, is a Textile Science major from Charlotte, North Carolina. Norman received honors during the first semester of his Freshman year and the second semesters of his Sophomore and Junior years. He is also the recipient of the Springs Foundation Scholarship. In the textile industry, Norman has worked in plant work and sales with Textile Fibre and Manufacturing Company for one summer, and in sales with P. F. Collier and Son Corporation for one summer. His job preference after graduation is in the production end of the textile industry.

Robert Eugene Wall is a Textile Science major from Charleston Heights, South Carolina. He is 21 years old. Bob has received an Albany Felt Company scholarship to help finance his expenses at Clemson.

Upon graduation Bob will receive a commission in the U. S. Army Reserve, and after completing his active duty, he would like to work in the production end of the textile industry.

At Clemson Bob is Editor of the “Bobbin and Beaker”; Kappa Delta Chi Historian; Vice President of N.T.M.S.; Chairman of the Council of Club Presidents; and Hall Counselors of C-8. In the Student Government he is Secretary of High Court, a member in the State Student Legislature, and a member of the President’s Committee. Bob is also a member of Blue Key, and he is listed in “Who’s Who in American Colleges and Universities.” During his Junior year, Bob was Managing Editor of the “Bobbin and Beaker.”

Thomas Wyatt Templeton, age 22, is a married student from Greenwood, S. C. Thomas is majoring in Textile Chemistry. He received honors during the first semester of his Freshman year, and also in the first semester of his Senior year. To aid with his college expenses, Thomas received the Charles H. Stone Scholarship during his Junior year, and he is the recipient of the South Carolina Textile Manufacturers Scholarship this year.

In the textile industry, Thomas has worked on a special project with Abbeville Mills during the summer. His job preference after graduation is to work in some phase of production or research in the textile industry.

At Clemson, Thomas is a Distinguished Military Student. He is also Treasurer of Phi Psi. During his Junior year, he was Treasurer of A.A.T.C.C.
I.B.M. PARTICIPATES IN 3-WEEK COURSE

Forest Dixon, Jr., T.C. '63

This fall textile students at Clemson witnessed an innovation in industry’s attempts to keep up with the fast moving pace of today’s textile world. Twenty-one sales representatives of the International Business Machines Company participated in an intensive three week course in textiles conducted by the faculty of the Clemson College School of Textiles. The salesmen spent most of their class time on courses pertaining to textile management and textile manufacturing processes. Also included in the three week course were several tours through textile plants in the immediate Clemson area.

The Clemson course is the first textile school to be held under IBM’s advanced sales program. The Clemson program met with immediate success and the undoubted sales increase in IBM Computers to the textile industry will also show the benefits of the course to the IBM company and the textile industry. Similar schools have been conducted for salesmen who specialize in banking, insurance, retailing, manufacturing, transportation, and local government. Other schools of this same kind have been conducted by other departments here at Clemson for various companies since 1957. Richard C. Warren, IBM Eastern Regional Manager, described the course as “an opportunity to provide our textile industry specialists with training that will enable them to apply a completely professional approach to the processing needs of textile companies. Members of the class, who originally joined the IBM sales force with at least a bachelor’s degree and have an average of five years experience with the company, were selected for the course from IBM’s offices from Atlanta to Montreal. The salesmen who participated in the course will be dealing directly with textile companies in the area near their respective offices.

The program consisted of more than seventy hours of classroom and laboratory instruction by the faculty of the School of Textiles and six industrial tours of cotton, synthetic and woolen mills, finishing plants and cotton warehousing firms. Professor T. A. Campbell, Jr., head of the Textile Management Department of the School of Textiles, headed the staff of Clemson professors who conducted the IBM school. Professor Campbell, who has done much work in costing for the textile industry, was highly complimentary in his praise towards the IBM Company for this “step forward” in relation with the textile industry. Of the total of fifteen class days four were spent solely on textile manufacturing processes, three and one-half were spent on textile management problems and the remainder of the three week course was spent on plant tours and a short course in fabric finishing. The greatest emphasis was placed on some of newer processes of the textile industry, since most of the salesmen have been away from any formal education for five years or longer. The basics of textile processing were made familiar to all the class members so that in their dealings with the textile industry they would be familiar with any situation which any particular company had at the time.

The main objective of the IBM school here at Clemson was to produce a salesman, who could go into a textile plant and understand not only the problems facing the manufacturer but also, the terms and processes used by the personnel of the particular company. During the course here at Clemson the personnel of the IBM Company were briefly exposed to every facet of a modern textile company’s operation. The salesmen learned how to operate some of the basic machinery in a textile plant, so that they would be better qualified to deal with today’s textile (Continued on page 14)
Cotton Production

By

Thomas Keith

Thomas Keith graduated from Texas in 1959 with a B.S. in Agricultural Journalism. After serving six months at Fort Jackson he became Technical Editor in Production and Marketing Division for the National Cotton of America.

Even as late as 1950 less than five percent of the total U. S. Crop was harvested mechanically.

There have been several reasons for this phenomenal growth, but the biggest has been the changing farm labor situation. Fewer and fewer workers have been available—and what labor has been available has become so expensive that it has become necessary to start looking for an alternative. Machines have provided that alternative.

A practice that has gone hand in hand with mechanical harvesting is defoliation. Early in the life of machine pickers it became apparent that a better job could be done if leaves were removed from the cotton plant. Removing the leaves lets in air and sunlight, which retards deterioration of seed and fiber and reduces boll rot. Dew is dried faster, which means more safe picking time—when the moisture content of the cotton is below 10 percent. The end results are reduced trash and moisture content of machine-picked cotton and increased picking efficiency.

While defoliation has gained wide acceptance as an aid to mechanical harvesting, methods to assure success year after year have not been developed. We still need better answers for a lot of questions: how to get complete leaf drop; when is the best time to defoliate to prevent yield reduction; what plant and environmental conditions are best for good result; how to prevent regrowth, and others. Researchers are now working on this important practice.

INSECTS STILL TAKE BIG TOLL

Let’s leave machines now and look at another vital area of cotton production—insect control. It’s hard to actually pin down progress here. We have improved insecticides—and more are being used than ever before. But insects continue to take an enormous toll. The boll weevil alone still costs producers about $340 million annually.

One explanation for this paradox is that many growers still take their chances with insects and don’t practice control. At the same time, our insect problems continue to get more complex. There is a greater number of insects to contend with, which means producers who don’t practice control suffer even heavier losses than before. Every cotton-pro-
COTTON PRODUCTION
(Continued from page 11)

ducing state now has practical, workable insect control recommendations and there is a definite need for educational work to get these recommendations into use.

Meanwhile, researchers are busy turning up new leads on how to better control insects. Since it is presently the most destructive pest and rates top economic priority, the boll weevil is receiving the lion’s share of attention. The million dollar cotton insect laboratory being constructed by the U. S. Department of Agriculture at State College, Miss., will concentrate on the boll weevil at first, but will later devote effort to other insects.

One of the latest and most promising developments in boll weevil control is designed to strike the pest as it prepares for hibernation. Recent research has shown that in the fall about 40 to 50 percent of all weevils enter “diapause,” a physiological stage in which they accumulate fat reserves and cease reproductive activity. Only those weevils entering diapause survive the winter.

In field tests in Texas in 1959, application of insecticides during this critical period in the life of the weevil resulted in almost complete eradication. To determine if this method can be developed for routine control, or a possible means of eradication, more extensive tests are now being conducted under widely varying climatic conditions and different degrees of isolation.

Cotton insects will undoubtedly be with us for a long time to come, but there are good possibilities for improving control measures and greatly reducing the toll they take out of farmer’s profits.

BIG STRIDES BEING MADE AGAINST WEEDS

Weed control is another big cost item which adds about four cents a pound to the cost of producing cotton, in addition to indirect losses in yield and quality. Lack of effective, dependable control methods also prevents full application of other cost-reducing practices such as mechanization, fertilization and irrigation.

This is an area where we’ve definitely made some big strides the last few years. We’ve seen improvements in mechanical control methods—flame cultivation, rotary hoes, etc. But the biggest and most promising development is in the use of chemical control. We’re now getting some pretty good chemicals to control weeds in cotton—if they’re used properly. Most of the herbicides available at present afford a small margin of error in that they can harm cotton and no one chemical will complete control. Most of them are rather specialized and will control only certain weeds.
There has been a step-up in research in this area. Studies are being conducted in an effort to develop economical chemicals that will give season-long control of all grasses and weeds which infest cotton fields across the Belt without harming cotton or leaving harmful residues. While much of this research is still in its infancy, there are already indications that through continued effort it should be entirely possible to tailor herbicides to specific weed-cotton situations.

Fertilization is another big key in the higher yields of today. And fertilizing for higher yield also cuts expenses, because planting, cultivating, dusting or spraying, and controlling weeds for a bale per acre costs only about as much as for a half bale per acre.

**PROPER BALANCE GIVES BIGGEST PROFITS**

It should be emphasized that efficient cotton production is dependent upon a proper balance of all improved production practices and no one alone will get the job done. This is borne out by results of the Five-Acre Cotton Improvement contest conducted for a number of years by the South Carolina Extension Service.

In 1957, 764 contestants furnished complete records of yields, costs and returns. These records were analyzed and divided into five groups according to average per acre yields. Two of these groups particularly show an interesting comparison.

Seventy-eight of the farmers averaged a little more than one-half bale per acre, and 82 averaged a little more than two bales. Most of the other (596) fell between these two extremes. The most significant differences in costs were for fertilizer and insect control. Other costs were rather uniform.

The half bale group used about minimum requirements for a balanced fertilizer and an average of four insecticide applications. The net profit to the farmer was $22 per acre.

The two-bale group used about 60 percent more fertilizer and an average of seven applications of insecticides. The net profit to this group was $240 per acre.

One other comparison was highly significant. The half-bale group produced cotton at an average cost of 31 cents per pound. The two-bale group reported costs which averaged less than 16 cents per pound. This further confirms importance of achieving a proper balance of improved production practices.

**OVER-ALL QUALITY IMPROVED**

This discussion would be incomplete without mentioning quality. Geneticists have given cotton a better inherent quality and all in all a good job is being done in preserving that quality in all phases of production, handling and ginning. However, there have been notable exceptions the last few years and the industry is devoting a concerted effort to eliminating these exceptions. Just as a rotten apple in a barrel affects the entire barrel, a few bad bales affects the entire industry.

This is not to underemphasize some of our quality problems. We need to know more about the effects of various production and ginning practices on quality—how these practices ultimately influence cotton’s spinning and end-use performances—and how we can measure quality and predict its value in all stages of marketing. Modern mills need better quality, and cotton’s competition is such that this better quality must be provided.

Again, research is the answer—and again researchers are hard at work to give us these needed answers.

**YIELDS, LABOR REQUIRED TELL STORY**

What has all of this progress meant to the industry?

The best indicators are yield and man-hours required per bale—and these pretty well tell the story. At the end of World War II we were producing 253 pounds of lint per acre and using over 300 hours of labor to do it. In 1960 we produced 442 pounds of lint per acre with about 65 hours of labor.

Certainly an impressive record of accomplishment—and a real challenge for the future. The present cost-price squeeze in no way suggests the industry

(Continued on next page)
COTTON PRODUCTION  
(Continued from page 16)  
can rest on its laurels. The very items that represent the industry's biggest problems in the area of costs and losses also present the biggest opportunities for greater gains in the future.

It behooves the industry to capitalize on these opportunities and continue the encouraging trends of the past.

A. A. T. C. C. CLUB  
By  
Jerry Byrd. TC, 1962. Secretary  
The Clemson College Textile Chemistry Club made a field trip to the Utica Mohawk plant on October 24, 1961. The members enjoyed the tour and learned a great deal about the finishing of cloth.

A supper for the members of the T. C. Club has been planned for the 12th of December. The supper is to be held at “Dan’s” and all T. C. majors are urged to join the club and attend the supper.

Since there is such a small number of members in the T. C. Club, it has been decided to meet only once a month instead of twice as in the past.

IBM PARTICIPATES  
(Continued from page 10)  
market. One of the main problems which had faced IBM salesmen in their dealings with the textile industry before the course was conducted here at Clemson was their lack of complete understanding of the needs of the textile industry with respect to data processing machines. Now, that the IBM salesmen knows how the industry wants and needs to use data processing machines his sales should increase because he can recommend to his customer an exact machine to meet the immediate and future needs of a particular company.

The success of this type of back-to-college training for sales-people is most apparent and other companies who deal with the textile industry should explore the possibilities of this sort of school for their sales force. The greatest advantage to be gained from this school is the ability of the salesmen to be able to comprehend the individuality of the textile industry and to deal with any kind of problem which might arise pertaining to their particular product. When a salesman knows what a customer wants he can surely come closer to selling him something which will please both the customer and the salesman; but when the two parties concerned cannot understand each other it is very hard to make a sale.
N.T.M.S. Keeps Pace With Time

By

John W. Mathis, Secretary, TM '62
Assisted by Donald L. Langley, Treasurer, TM '63

Since its organization in 1951, The National Textile Manufacturing Society has grown through the years and has become one of the prominent professional organizations on the campus. The purpose of the organization has been to bring about a more intimate relationship between the textile industry and the undergraduates of the textile school.

This year the N.T.M.S. has shown its popularity by surpassing all previous records of growth. The club experienced a threefold increase in membership. With this increase in membership there has been an increasing number of field trips, movies, and guest speakers. These field trips, movies, and guest speakers give the members a chance to see all phases of the textile industry. It acquaints the student with some of the problems and solutions of the industries.

The latest activities include a field trip to a narrow fabrics plant in Greenville, South Carolina; a speech by the Dean of the School of Textiles; and a movie on quality control.

With the coming year to look forward to, the N.T.M.S. is keeping pace with time. In order to perpetuate an ever evolving goal of perfection, the N.T.M.S. recently reached a decision which should have far-reaching effects on the prestige and value of the organization. The members voted to become affiliated with the American Association for Textile Technology and to discard the name of N.T.M.S. Henceforth, the club will be known as A.A.T.T.

The decision to become affiliated with the American Association for Textile Technology came after several months of debate and correspondence between the two groups.

The American Association for Textile Technology has been a senior organization for some forty years and is now in the process of organizing Student chapters throughout the vast area blanketed by the textile industry. The decision to change to the national organization will enable Clemson textile students to become charter members of the student division of one of the larger professional organizations of Textile Technologists in the country.

As the members of the now defunct N.T.M.S. look back over the ten years of existence as a local club, they can be proud of its many accomplishments and honors. Present day members can also look forward to launching the A.A.T.T. as a new and valuable organization which will serve the textile student and the textile industry for many years to come.

WINTER ISSUE 1962
Job Openings

R. B. Lineks, Personnel Department, Burlington Industries Inc., Greensboro, N. C.; (1) ME, with related experience, for humidity and refrigerator design in Central Engineer Department; (2) Draftsman, prefer architecture background, for assignment in engineering office, $500-600.


L. W. Mott, Personnel Manager, Coates and Clark Inc., Albany, Georgia: Textile graduate, or equal background, to start on management training program—about 1,000 employees.

G. E. Wall, Personnel Director, Calloway Mills Co., LaGrange, Ga.: Immediate openings for Chemistry graduates in (1) customer liaison with plant and new latex developments of applications and treatments; (2) project work in Research Department on wet finishing and painting, evolution of chemicals, etc.—prefer no military obligations.

J. C. Spangler, Director of Employment, Dan River Mills, Danville, Virginia: Shift Overseers or Second Hands in Carding, Spinning and Weaving, prefer 3 years experience—promote to Department Overseers, good salary and pay moving expenses.

R. R. Miller, President, Dixon Corporation, Monroe, North Carolina: Textile graduate, with spinning and roving experience, also engineering or supervisory background—manufacturing spinning change overs for textile industry.


C. E. Ernest, Employment Supervisor, Wallerstein Co.—Division of Baxter Laboratory Inc., Mariners Harbor, Staten Island 3, New York: Textile Chemistry or Chemistry graduate with industrial experience, for technical sales and trouble shooting with Textile and Paper Department—considerable travel required, offers good salary and benefits program, one opening for Technical Sales in Southern states to textile and paper industries.

W. S. Gault, Recruitment Manager, American Viscose Corporation, 1617 Penn. Blvd., Philadelphia 3, Pennsylvania: (1) 13 openings of Chemistry, Ch En, EE, ME, and others, 0-5 years experience, in research, development, engineering, technical and sales departments at 6 locations—new products and processes offer challenging opportunities; (2) Textile graduate, or equal background, for Sales Trainee in textile fibers division.

J. L. Kennedy, Manager of Personnel, Johnson & Johnson, 4949 West 65th Street, Chicago 38, Illinois: ME or Textile graduate, 0-5 years of experience, project engineering assignment in Cotton Processing area, start salary to $823.

R. S. Barnes, Plant Manager, Rhymhouse Manufacturing Company, Box 444, Cherryville, North Carolina: Textile graduate, strong combed experience, for Overseer of Carding—excellent future with BI plant.
Class of 1940

Anderson, C. E., from Union, S. C. Mr. Anderson is at present plant manager of Excelsion Mill in Union.

Cobb, Charles D., a textile major from Trion, Georgia. Mr. Cobb is working in Columbia, South America, as Plant Superintendent of Celanese Colombiana.

Ferguson, Thomas Dale, a textile major from Abbeville, S. C. Mr. Ferguson is now Superintendent of Weave Mill for Abbeville Mills Corp.

Class of 1942

Abbott, Wallace White, from Morristown, Tennessee. At present Mr. Abbott is now serving American Enka Corp. as Technical Supervisor of Textile Dept., in Lowland, Tennessee.

Berry, Robert Sayre, Jr., lives in Cornelia, Georgia. Mr. Berry is employed by Chicopee Manufacturing Corporation and is Plant Superintendent in Cornelia.

Filmore, William C., a textile major from Abbeville, S. C. Mr. Filmore is now Product Manager of Sales Yarn for Abbeville Mills Corporation.

Godfrey, James H., a textile major from High Shoals, N. C., serving as Superintendent for Carolina Mills. Mr. Godfrey is employed by Burlington Industries.

Class of 1944

Adams, Allen T., from LaGrange, Georgia. Mr. Adams is now Plant Engineer for Calloway Mills in LaGrange.

Boyce, Jesse A., a textile major from Durham, N. C. Employed by Erwin Mills, Inc. Mr. Boyce is now Assistant Manager of Durham Division in Durham.

Chandler, Ray E., from Spartanburg, S. C. Mr. Chandler is now Yarn Development Coordinator in the Createx Plant of Deering Milliken, Spartanburg.

Holt, Ernest E., a textile major from Kingsport, Tennessee. Employed by Tennessee Eastman Company. Mr. Holt is now Manager of Production Planning for Fiber Divisions.

Jolley, Joseph Douglas, a textile major from St. Paul, N. C. As General Overseer of Carding, Mr. Jolley is employed by Burlington Industries in the Robeson Plant in St. Pauls, N. C.

Class of 1946

Ballenger, Gerald, a textile major from Wellford, S. C. He is presently Manager of Industrial Engineering Dept. of Jackson Mills in Wellford.

Pinson, Marvin J., a textile major from Raeford, N. C. Mr. Pinson is now Superintendent of Raeford Plant, Burlington Industries.

Wood, Allen K., a textile major from Kingston, N. C. Mr. Wood is now Supervisor of Process Control in Kingston Dacron Plant, E. I. Du Pont.

Class of 1948

Buchanan, Lawrence H., a textile major from Greensboro, N. C. Mr. Buchanan is presently employed by J. P. Stevens & Co., Inc. as Assistant Yarn Sales Manager in Greensboro.

Burns, Leland E., a textile major from Great Falls, S. C. Serving as Manager of Republic Plants 1, 2 and 3. Mr. Burns is employed by Republic Cotton Mills.

Calvert, Robert Lewis, a textile major from Louisville, Kentucky. Mr. Calvert is presently Assistant Superintendent for Louisville Textiles Inc.

Carlton, Calvin C., a textile major from Gastonia, N. C. Mr. Carlton is at present Assistant Manager of Gastonia Yarn Plant, United States Rubber Co.

Class of 1949

Kelly, Z. K., a textile management from Pelzer, S. C. Since graduation Mr. Kelley has been an Overseer in the Spinning Department for Limestone Manufacturing Company in Gaffney, S. C. He is at present Assistant Superintendent of Henderson Cotton Mills in Henderson, N. C.

Cameron, Frank B., a textile major from Lavale, Md. Mr. Cameron is now Production Manager of Amcelle Plant for Celanese Corp.
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