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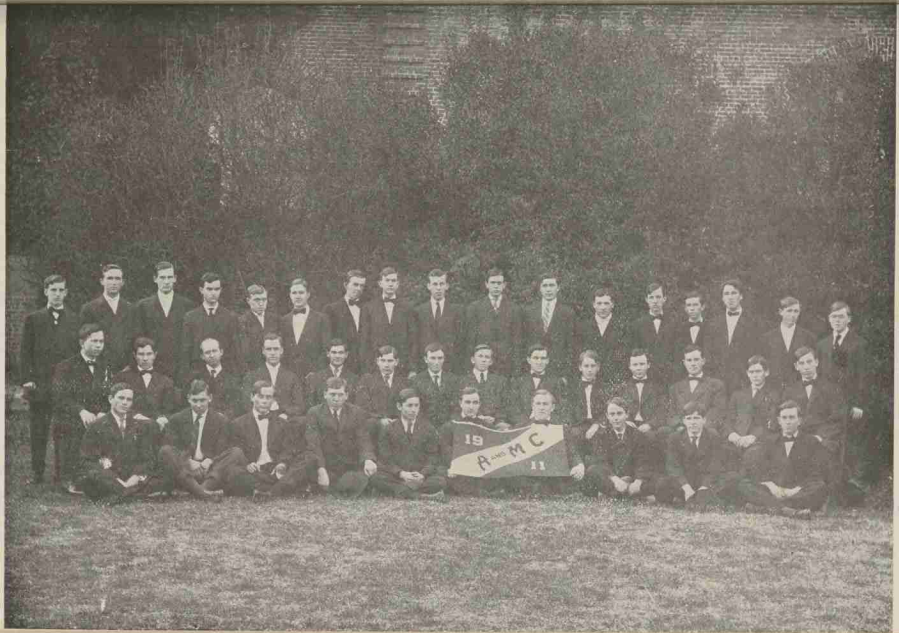
I wish to ask those students who have not yet paid their subscriptions for the RED AND WHITE to come in and do so at once. Most of you have promised to pay by a certain time, now it is "up to you" to do it.

Our bills have to be met promptly every month, and to do this we have to depend upon our subscribers for the first half of the year.

L. H. KIRBY,
*Business Manager.*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# The Red and White

Vol. XI. West Raleigh, N. C., November, 1909. No. 3.

## THE TEXTILE INDUSTRY OF NORTH CAROLINA.

Cotton was cultivated in North Carolina before the Revolution, and was worked into cloth by hand. In the year 1813 the first cotton mill was erected near Lincolnton and was driven by water power. During the next fifteen years only two or three mills were built. In 1830 the first steam-driven mill was constructed in Greensboro. From this time till 1870, a period of forty years, the milling industry was slow, and the total number of mills was only some thirty odd. The reason for the slow growth of the industry during that period are many, but the chief and most important one was slavery. Slavery prevented the growth, promoted agriculture to the negligence of all other industrial pursuits.

In 1880 the number of mills had increased to about fifty. During the next ten years the number of mills almost doubled, reaching the number of 93, and consuming 130,000 bales of cotton a year. The milling industry continued to increase very rapidly, and in 1900 we had a total of over 200 mills, using annually about 400,000 bales of raw material. In 1905 our mills reached to 275, consuming 600,000 bales. In 1908 we had within our borders over 325 mills, and using 800,000 bales, which was more than the total production of the State. We have at the present about 354 milling industries, which puts us second to no other State in the Union.

The products that our mills produce vary greatly, ranging from the coarsest yarns to the finest fabrics. We are excelled by only one State in the United States in quality of production, and that is Massachusetts. It is only natural that Massachu-

setts should hold first place in the matter of fancy goods. It has in the past, but will not in the future, be the most prominent section for cotton manufacturing in the country. They have weavers that are more experienced than our Southern men on account that they have been in the textile business longer and are better acquainted with the finer grades of goods. But today, according to the latest statistics, North Carolina has more fancy looms than any other Southern State. Conditions for weaving finer goods are becoming more favorable. The plain loom weavers are getting experience that can be used to an advantage in fancy weaving, in the same way that the Massachusetts weavers got their experience and became skilled workmen. It seems quite probable that in a few years, if we continue as we have in the past, that we will surpass Massachusetts in quality as we have in quantity.

On account of the rapid growth of the milling industry our mills are constructed by the plans of our latest architects. More attention is being paid to the care of the health of the operatives. Our mills are being constructed with high ceilings and tall windows, so as to allow the impure air, as it rises, to pass out through the transom, and to allow the fresh pure air to come in. In this way the danger of the operatives being exposed to draughts is very small.

Our mills are equipped with the latest up-to-date, improved machinery, thereby reducing the number of employees and increasing our output per mill. Our mills are also being equipped with the latest humidifying systems, steam heating and fire protection outfits on the market.

The temperature and humidity of North Carolina is especially well suited for the successful manufacture of textile fabrics, as well as for the health of her citizens. We are neither way in the extreme. We are free from the cold blasts of the North, and also from the sultry suffocating air of the South. Our winters are mild and our summers are pleasant.

We are included between the 34th and 36 1-2 degrees north latitude, and extend from the coast to and through the highest

mountains this side of the Rockies. We have within our boundaries most of the renowned Piedmont section which has proved to be the best region, not only in the South but in the United States, for the manufacturing of cotton goods.

We have in the State water-power that can't be equaled by any State in the South. We have enough water-power to propel, if properly developed, "not only all the mills in the South but every loom and spindle in the world." This water-power is not only in one section of the State, but includes almost every stream of any size. The streams in the center and western part are by far the best on account of the increased rise of elevation. This great power is being developed into electrical power. Many of our mills are taking out the engine and putting in the water. All of the mills that are being built to-day that are of any size are putting in electrical power. In the course of a few years all the mills will be run by electrical power. Steam will only be used for heating purposes and as a means of protection against fire.

The development of the water-power means the enrichment of the State in other manufacturing pursuits, as well as the textile industry.

The price of cotton has risen to such a great extent in the last few weeks that the manufacturers have not been able to buy the raw material and convert it into finished products at a profit. This rise in the price was due to the recent manipulation of the stock market by the speculators. The mills all over the United States are affected by this rise as well as those of North Carolina. Many of our mills are closing completely down and many are running on half-time and less. The mill men are not trying to lower the price of the raw material but are endeavoring to raise the price of the finished goods up to a parity with the raw cotton.

The farmers are the people that can help the situation. They have, at this time, plenty of money and that is why the mill men are urging them to buy their cotton goods supply now while the price is lower than it probably will be in the future.

If they buy now the accumulation will be removed from the over-stocked market, thus pushing up the price of the goods, so that the manufacturers may put their mills in operation without loss.

This temporary derangement of the finished goods market is not affecting the building of new mills. The capitalists are investing their money as if nothing had happened. The outlook for the textile industry in North Carolina is brighter than it ever has been. Who will say that in a few decades the hum of the bobbin and the knock of the shuttle will not be heard in every nook and corner of the State?

D. R. HINKLE. 11.

## A TRUE LIFE.

Life is a grand possession and a glorious opportunity. As Pope has well said, "The vanity of human life is like a river, constantly passing away and yet constantly coming on."

Every life should have a purpose and a duty; and it makes no difference how great or how little, each life has its place to fill. God has given the smallest seed life and has sent it on its mission. The plant from the smallest seed has its purpose to accomplish.

How much more has man—the greatest being God has created—to accomplish. God has seen fit to endow us with mental and moral power to fulfill the great mission He has given us to perform. Each day's work that is left undone causes a break in our lives that we may never be able to repair.

"Yesterday was ours, but it is gone; to-day is all we possess, for the to-morrow we may never see."

Great destinies are in each passing hour, great responsibilities are in the passages of every life; great dangers are hidden in the paths of life's highway; uncertainty hangs over our future.

Why then do we live? Why these great endowments of mind and heart? Why these means in education for the development of these powers? Why do we find ourselves thus living, surrounded by human beings like ourselves, who yield to our example and our influence?

We see the grand opportunity for usefulness in all directions at all times. God enlarges our usefulness if we have faith in Him. Education adds to our privileges and our opportunities. We should learn the lesson of true living so that we may accomplish our work by a successful life. Our lives, though brief and frail, will govern our eternity.

We may make life what we desire it to be for ourselves. Our path may be difficult and rocky, but if we strive to build on the true foundation we shall come out more than conquerors. Our

lives are shining either for good or evil and it is a duty to so let them shine that we may uplift and help others.

We all have our tasks. The sun and moon and even the smallest seeds fulfill their mission.

Man will fulfill his mission if he lives to glorify God and bless the world. The noblest and truest lives are those that make sacrifices for others. A light does not shine for itself but others; neither does a seed grow and multiply for itself, but it brings forth fruit for the world.

Our character and life depends greatly upon our friendships. It is also a very true fact that a person may be known by the books he reads as well as by the companions he keeps. It is a well known fact that the friendships formed in school are the most substantial and enduring. These friendships are dearer, for it is the time of our first struggle for knowledge and influence. At no other time have we a greater desire to stand first among those with whom we are associated or to become the most honored and best beloved among our classmates. Even when we drink at the crystal fountain of knowledge we most strongly feel the weight of our influence.

The memories and the friendships of our school days cling closely to our hearts. Generally those who share our struggles and ambitions are nearest to the sacredness of our heart.

The man who darkens the way by malice, deceit and dishonor makes eternal failure.

> "That man may breathe, but never live,
> Who much receives, but nothing gives;
> Whom none can love,
> Whom none can thank,
> Creation's blot, creation's blank."

Those who feel most see most, are most closely in touch with beautiful and pure in thought; nay, even in contact with the things around us, lead the highest and truest life. To do good, to help and to bless others, to rescue the perishing; to teach the

ignorant, to guide the erring, to comfort the weary—these are among the great objects of a noble human life.

How beautifully has Spencer compared life to a book: "Man is, as it were, the book; his birth, the little page; his life and actions are the subject; his sins and errors the faults escaped; his repentance the correction. As for the volumes, some are in folios, some volumes in octavo, etc.; some fairer bound, some plainer; some have piety and godliness for their subject; some mere romances, but at the end of every one there is the word 'Finis.' Such is man's life, some longer, some shorter, some weaker, some holy, some profane. But death comes in like 'Finis' at the last and closes up all, for that is the end of all."

After years of pleasure in earthly things what a true and noble life Lady Huntingdon led. One evening, while on her way to a brilliant assembly, suddenly there darted into her head these words, which she had committed to memory when a child, "Man's chief end is to glorify God and to enjoy Him forever."

From that hour her whole life changed. The guilty, trembling sinner, hitherto occupied with her poor self, gazed into the face of Him who died for her, and as she gazed her conscience found peace and her heart a satisfying rest. Her whole life became one "living sacrifice." She put her trust in God and lived for others; she looked up to Him.

We all must look up. Decide upon some noble purpose, then strive with all your manhood or womanhood to accomplish it. Be honest, industrious, kind, so that your life may be a true life, and then may you realize "that life is what we make it."

"'Tis not for man to trifle,
Life is brief, and sin is near,
Our age is but a falling leaf,
A dropping tear.
We have no time to sport away the hours,
All must be earnest in a world like ours.
Not many lives, but only one have we,
One—only one;

How sacred should that one life ever be,
That narrow span,
Day after day filled up with blessed toil,
Hour after hour bringing in new spoil."

J. L. MARTIN.

## A TRIP TO MT. MITCHELL.

"There it is at last!" Thus we exclaimed when a sudden curve in the rock-laid trail brought us within a few feet of Mitchell's monument. Yes, there it stood, in the dense overhanging and enveloping cloud mist, weatherworn, namescratched and pierced by numerous holes, which anxious souvenir-seeking tourists had carelessly and recklessly made in an effort to get pebbles from the inside. The granite-like shaft is not granite at all but an *imitation* monument constructed of lightweight materials and filled on the inside with native crushed rocks and pebbles to give it rigidity. This method was, no doubt, used because the long trail is too rough and hazardous to even attempt the transporting of marble, granite or other heavier materials from distant quarries.

But, back to our party; a large party it was, some fifty or sixty strong. No jollier, care-free company ever made a pilgrimage to the resting place of the daring explorer, Dr. Mitchell. Ten days previous we had assembled in the secluded mountain valley, most fitly called Montreat, with hundreds of others from various Southern colleges as delegates to the Southern Students Conference. On the night previous the great conference had closed and we, like children just out of school, were exultant with thoughts of real mountain climbing and sightseeing in the "Land of the Sky." Natural wonders and picturesque scenery loom up in every direction from the little mountain village of Montreat. And so we, in spite of the threatening, overhanging clouds, shouldered our blankets, overcoats and knapsacks, with childlike alacrity, and were off on the long eighteen-mile tramp, caring naugh for heavy packs, distance, rain, cold, hardships or anything else. We were off to Mt. Mitchell, let the results be what they would. It was mid-June, the month of months for mountain scenery. Surely nothing is so "rare as a day in June," even if it be rainy and dismal-like. Budding trees, blooming flowers, chirping birds

and rippling waters far surpass a little atmospheric irregularity. Not a few withdrew at the last minute, fearing that the humid atmosphere predicted rain. We went.

The almost continuous excessive rains of the conference week had rendered the trails difficult to traverse in many places. At first this was little heeded so free were our steps; but before Greybeard was covered many, who were *strictly novices* at "hill climbing," began to realize that the task is not *all* a joke. Some had taken the five-mile "mountain climb" to Greybeard with one of the afternoon parties during the conference and later realized that it is probably the most difficult part of the entire trail. We had seen a mountain in the far distance which had the appearance of having a "chip out of its side." "That is Mitchell," our guide had said; "look closely just to the right of that big cloud and you can discern the faint outline of the monument." However, when our party reached Greybeard on that particular morning the clouds were so dense that nothing was visible a few feet off. We were in and above the clouds! Following the guide we descended Greybeard, moving in the direction of "the mountain with a chip out of its side." "It is too bad to be going down when we know that every inch of it must be again ascended before we stand on the 'highest point east of the Rockies,'" said one of the fellows as we descended the steep mountainside.

After descending Greybeard and following a path of solid rock for some distance, another peak was reached, the trail going up its steep side. On we went, a long chain of travelers, every one his own baggage carrier. Already we were beginning to regret that we had been unable to secure a donkey for transporting our provisions and baggage. Going up and down mountains and through the valleys we pushed on towards our goal. The peaks of Pinnacle, Potato Top, Clingman's Dome and others were thus successively covered. The trail was in places even and easy, in others rough and hard; in still others steep and hazardous, with innumerable variances of indescribable peculiarities and wonders which the forces of nature have ef-

fected in the rocky cliffs. Sometimes it is through dense growths of balsam or other forest trees (varying, of course, with the elevation); sometimes the forests were bare, the naked trees having been killed by fire and insect pests; sometimes through level spots, free from tree life but covered with grass; sometimes through nearly waist-deep rock gorges; sometimes up almost perpendicular rock walls or along steep precipices. So varying and thrilling are the experiences that one must go personally to appreciate them.

When about half the distance had been covered a sudden shower overtook us, utterly wetting many. Soon after the shower a little spring was found on the mountainside, and there we stopped for dinner, being both wet and hungry, several consuming nearly all their provisions. Having eaten and quenched our thirst we moved on slowly through the opaque mist and wet trail until at last our introductory exclamation was called for. Already it was getting late and cold, therefore preparations for the night were speedily undertaken. Several returned at once, but the others spent the night on the mountain.

To the right of and a short distance below the monument is a large overhanging shelflike rock which camping parties find to be a most acceptable provision of nature. It was about 5 o'clock in the afternoon, rather early to retire, but the first to arrive quickly spread their blankets in the most favorable places and crowded under the rock for protection. The temperature and rain continued to fall. Still more boys continued to arrive. A fire was necessary. Out of scrap paper and other available material a *smoky* fire was with difficulty kindled, which, with continued coaxing, sufficed in part to dry our wet garments and warm our shivering bodies. During the rest of the afternoon and through the long, dark hours of the night the fire was kept *smoking* and burning. Some slept; others tried to, but all found it uncomfortable to be packed sardine-like on the cold ground under a rock, where the cold winds and trickling, spattering raindrops chilled our bodies more and more. Neither were thoughts of *probable* snakes and the *real* nibblings of mice or

rats at our knapsacks very conducive to gentle sleep and sweet dreams.

After a seeming eternity of darkness and never-to-be-forgotten experiences the first dim reflected rays of the rising sun crept into the eastern horizon. "Get up, everybody!" shouted those who were awake. In a minute all were gathered around the *smoking* balsam boughs, wrapped in both overcoat and blankets, but shivering. With heads turned eastward we trembled, tried to warm, ate a scanty breakfast and eagerly watched for the rising sun.

Indeed, a Mitchell sunrise such as greeted us is worth many times its cost. The sun had set unseen; we were surrounded by a translucent vapor; the sun rose plainly seen, we were in a clear, bracing atmosphere. As we waited and watched hilltop after hilltop, and valley after valley were magically added to our horizon. Above the reflected rays painted the sky and clouds in gorgeous tints of red; below the oncoming light pictured, in reality, innumerable valleys in which many of the previous day's clouds had arranged themselves during the night. As it grew lighter and warmer the resting clouds began to move, first slowly, then quicker and quicker as the rays of light shot arrowlike over each hill and through the succeeding valleys. It was as if we had been blindfolded and taken to that spot. Statuelike, marveling and awe-stricken we watched until the sun shot from behind a peak and all was day again. "It's all over, let us go," said one. "No; wait until I get a picture," said another. So there in the rays of the rising sun, six thousand seven hundred feet above the sea, we grouped ourselves together for a snapshot.

Our return was practically uneventful, a mere retracing of steps. Some hurried, others went slowly, all feasted their eyes on the beauties of the indescribable handiwork of nature. Some reached Montreat by 10 o'clock, others by one; all were tired but proud of their trip. To the surprise of many it was found, in some instances, more difficult to descend than it had been to ascend.

A short distance below the top of Greybeard is a ledge of rock with a small fissure in it through which a little stream of clear cold water bubbles up and trickles off down the mountainside. Ascending we scarcely noticed it, but how invigorating was the water after walking thirteen miles! From this almost insignificant beginning flows the water of the sparkling little stream which goes by leaps and bounds down the mountainside, ever increasing in volume and importance until it becomes a rushing brook ere it reaches Montreat; from this same beginning the fabled Swannanoa draws its never-ceasing waters. An enjoyable, wonderful, instructive, never-to-be-forgotten outing is "A Trip to Mt. Mitchell."

J. P. Quinerly. '11.

## PREPARATION OF COTTON FOR DYEING.

In order that we may clearly understand the different processes through which the cotton must pass before it is ready for dyeing, we must first study the properties of the cotton fiber. Cotton is a white, drowsy substance which is closely attached to various kinds of seeds. The fibers and seeds are enclosed in a pad or bale which gradually opens as the cotton ripens, and when the cotton has fully matured the bale is completely opened. The cotton is then picked and spread out to dry, and is afterwards taken up and the seed separated from the fiber by a mechanical process known as ginning.

When seen under the microscope ripe cotton consists of minute fibers spirally twisted having thick and thin, broken and irregular markings on the surface. Looking at a cross-cut section of the fiber under the microscope it appears like a flattened tube with comparative thick walls, containing a small opening in or near the center of the fiber. This is not true in unripe cotton. Here we find comparatively no twist in the fiber, and looking at a cross-cut section no separation in the thin walls are seen.

The cotton fiber consists of elongated cells whose walls are made up almost wholly of pure cellulose, containing 85 per cent of this substance. The walls of the fiber are surrounded with an oily substance of a waxy nature. This waxy substance, as we will later see, is insoluble in water and to this is due the fact that raw cotton is impervious to water and dye-stuffs. Heated to a certain degree the cotton fiber will work much better than at ordinary temperatures, due to the warming of the oily-waxy substance which makes the cotton more flexible. For this reason spinning rooms are kept heated to a certain temperature. On the other hand if heated to 100 degrees C. (212 degrees F.) it gives up its water of crystallization, is found to be plastic, and can be made to take up any position. On the removal of the heat it will take up its water of crystallization and

resume its original shape. On this is based the principle of hot finishing.

Cotton in its natural stage contains from five to seven per cent of moisture, its maximum being thirty per cent. The cotton fiber when clear of all impurities is almost wholly pure cellulous, a substance found distributed throughout the vegetable kingdom. In order that we may understand the action of chemicals on cotton we must first study the action of different chemicals on cellulose. A chemical analysis of cellulose shows that it contains carbon, hydrogen and oxygen. Having a brief analysis of the cotton fiber, let us notice the action of acids on it. Concentrated mineral acids act rapidly on the cotton fiber at an elevated temperature. For example, treat cotton with heated sulphuric acid. At first it will swell up and form a glutinous mass, and if further treated with this acid the cotton will be completely dissolved, forming a gumlike substance. Again, if hydrochloric acid is allowed to remain in the cotton and dry the cotton is reduced to a fine powder. Also, if cotton is heated with sulphuric acid at from 100 degrees temperature to 125 degrees temperature and then thoroughly washed it has a greater affinity for dye-stuffs. At ordinary temperatures organic acids have no injurious effects on cotton. The action of concentrated caustic alkalines effect both chemical and physical properties of cotton. Dilute caustic alkalies at from 4 degrees to 5 degrees help greatly in the cleaning of the cotton.

Having gained some idea of the action of acids and alkalies on cotton let us begin its preparation for dyeing. The first thing to be done is to clean the cotton of as many of its impurities as possible. This is done by a process known as scouring of the cotton or the lime boil. This boil renders part of the impurities in the cotton soluble in water, and are then easily washed out. After as many impurities as possible have been removed by the lime boil the cotton is then bleached. The object of bleaching is the further removal of impurities such as cotton wax, aluminous matter and coloring substances.

Before the invention of bleaching powder bleaching was done

by laying the cotton out on the growing grass. The grass has the power of decomposing the carbonic acid, retaining the carbon and throwing off the nascent oxygen. The oxygen in this state has the power of removing almost all kinds of coloring matter. This method was aided greatly by the action of the sunlight, but even then it was a very slow method.

The next step in bleaching was the discovery of chlorine gas. This gas alone would not bleach but under certain conditions it would decompose water forming nascent oxygen which removed the coloring matter from the cotton. To this process there is also objections: (1) The chlorine is very loosely combined with the chemic and when treated with an acid the chlorine is liberated so fast that it is impossible to remain in the dyehouse for any length of time; (2) the rapid action of the chemicals have a tendency to tender the cloth. At present bleaching powder is used for bleaching. After treating the cotton with the chemic it is allowed to remain for a few hours before souring off. During this time the carbonic acid decomposes a little of the chemic, the hypochlorious acid thus set free quickly decomposes into hydrochloric acid and nascent oxygen. The oxygen as above stated has the power of removing the coloring matter from cotton. After bleaching the cotton must be thoroughly washed in order that all the soluble impurities may be gotten rid of.

Sour with hydrochloric acid which renders all lime salts in the form of soluble calcium chloride. Hydrochloric acid is used rather than sulphuric because hydrochloric acid in this case forms calcium chloride, which is much more soluble in water than calcium sulphate, which would be formed if sulphuric acid were used.

After washing to make sure that there is no acid left in the cotton it is carried through another process known as the neutral bath. This consists of passing the cotton through a solution of sodium carbonate, which will neutralize all acids remaining in the cotton. The cotton after being washed and dried is ready for dyeing.

T. C. BARBER. '11.

## HAMLET.

The tragedy of Hamlet, Prince of Denmark, was written in the years sixteen hundred and two and three, and first published in sixteen hundred and four.

The main source of the plot of Hamlet is the Historia Danica, of Saxo Grammaticus, Denmark's first writer of importance, who lived about the close of the twelfth century.

The play opens with a scene in which two guards are on duty on the platform before the king's castle. A ghost appeared to them which resembled exactly Hamlet, the former king of Denmark, who about two months before had died or had been murdered. The ghost appeared at exactly 12 o'clock. Once he had raised his head as if he was going to speak, when the cock crowed and the ghost immediately vanished.

One of the guards, Horatio, who was a very dear friend to Prince Hamlet, son of the former king, and nephew to the present king, who had married his mother, determined to tell the prince about seeing the ghost of his father.

When young Hamlet heard of it he told the guards that he would be at their post that night to watch with them.

Just as the clock struck twelve the ghost came forth and Hamlet recognized it to be the ghost of his father. He spoke to the ghost but it did not answer him, but beckoned to him to follow it.

Hamlet followed, and when they had got some distance from the guards they stopped and the ghost told Hamlet that he had been murdered by his brother, who was then king, and who had within two months after his death married his widow.

He said that he was sleeping one afternoon in the garden, as was his custom each afternoon, and that his brother had put poison in his ear while he was asleep. The cause given out to the people was that the king had been bitten by a poisonous snake and that he had died from the effects. The ghost asked Hamlet to revenge his death by killing the present king but

told him not to harm Gertrude, the wife of the king and mother to Hamlet. The ghost then departed and Hamlet returned to the guards.

Hamlet told no one except Horatio what had happened, and told the other guard to say nothing about having seen the ghost.

Hamlet, in order not to let his mother know what was troubling him pretended that he was mad, and she thought that his madness was brought on from being in love with Ophelia, the daughter of Polonius, the lord chamberlain. The king and queen tried in every way to make him happy but it had no effect on him.

Hamlet did not know for certain whether it was really the ghost of his father he had talked with or whether it was the devil in his likeness, so he determined to find out more about the murder before he should take his revenge on the king.

A company of players came to the court whom Hamlet had enjoyed watching play some time before, so he engaged them to play for him that night and invited the king and the queen to witness the play.

He had them to play the murder of Gonzago, a duke, which happened in Vienna. The duke was poisoned by Lucianus, a near relative of his, in his garden in order that he might get his estate. Soon after Lucianus married the wife of the duke.

This murder was nearly identical with that of Hamlet's father, so before the play was over the king could stand it no longer and called for lights and retired. Hamlet knew now without a doubt that the king had been his father's murderer.

Hamlet's mother now called him into her closet to have a talk with him. The king, in order to find out the conversation, had had Polonius to hide in the room to hear it. Hamlet's mother began to tell him how he had offended the king whom she called his father. He in turn began to rebuke her for his father's murder.

She attempted to leave the room, but he caught her and would not allow her to leave so she began to cry for help, and Polonius started to her aid but was killed by Hamlet.

When the king heard of this he determined to send Hamlet to England as an exile and there to have him killed, so he accordingly had a ship made ready for the voyage.

On the next day Hamlet with two guards started for England. When they were some distance from land their ship was attacked by a ship of pirates and Hamlet was taken prisoner by them, but the balance of the crew and passengers managed to escape. The pirates landed him again on the coast of Denmark and he determined to go on the next day to see the king, so he sent messengers with letters to him telling why he had returned.

When Hamlet got back home he met with a sad spectacle. This was the funeral of Ophelia, whom he had loved so much. He saw Laertes jump in the grave, saying that he would be buried with his sister. Upon seeing this Hamlet jumped in the grave also, saying that no one loved Ophelia as much as he and so he would be buried with her.

Hamlet and Laertes had a struggle in the grave but were separated by some of the servants, and they became reconciled.

The king wanted Hamlet to be killed so he told Laertes to challenge him for a fencing match. Hamlet accepted, and they were to fence on the next day. Before the contest the king had poison put on the sword of Laertes so that when Hamlet was struck with it he would die, and the king also had poisoned wine prepared for him to drink so that he would be killed in one of the two ways.

In the contest Hamlet was pierced with the sword but it was knocked from Laertes' hand and Hamlet then stabbed Laertes with it. Laertes then told Hamlet that it was a poisoned sword and that he would die within half an hour. Laertes then died. The queen, not knowing the wine was poisoned, drank some of it and died immediately. Hamlet then took the sword with which he had killed Laertes and killed the king and he himself died a few minutes later.

M. F. WYATT. '11.

## WATERFALL DEVELOPMENT IN THE PIEDMONT SECTION OF THE CAROLINAS.

It is the aim of every manufacturer to get the largest profit out of his machinery, and at the same time be at the smallest cost to run the machinery. To do this he has to use a drive that will run the machinery at its maximum limit and at the same time keep this speed constant.

The system that more nearly fulfills these conditions than any other known is the electric drive for the machinery. This increase in production is due largely to the fact that the traque is constant at all times in the motor. On the other hand the traque of a reciprocating engine varies from nothing when the piston is at the end of its stroke to a maximum at the middle, and to nothing again at the other end. The speed, even with a heavy fly-wheel, varies materially throughout the stroke and causes pulsation on high-speed machinery like spindles or warpers in cotton mills. These pulsations in many cases throughout the mill may be multiplied in intensity, and should some weak or defective thread encounter this pulsation at a proper time it will break. The machinery being automatic the moment one thread breaks the whole machine stops until an operator can repair the thread and start the machine. It is due largely to this constant traque that the electric drive in some cases has increased the production as much as ten per cent.

Because a manufacturer uses coal for his boiler he does not think that it is necessary for him to operate a coal mine. If he uses power why should he operate a steam plant?

If it is a paying investment to mill owners to use the electric drive when they have to build separate power plants for each individual mill, would it not be a much better investment if all the mill owners in one town should combine to build a central power station from which to supply power to the individual mills. This, however, is an almost impossible proposition, due to reasons that we need not treat of here. In the majority of cases manufacturers are not steam engineers and cannot give

this question the same close personal attention as the central station manager who has made it a life study. Neither can they afford to pay the same salaries for skilled mechanics and electricians to operate their power plant as can the manager of the central station, inasmuch as a large plant will not require more expert attendance than would the small plant, and then though the labor item in the operating, say a 25,000 horse-power plant, be greater than that of a 3,000 horse-power plant, the cost per horse-power output is not proportionately the same, but considerably less. Moreover, the power item in a cotton mill only averages about two and a half per cent of gross operating cost. Other manufacturing plants take a trifle more or less, so why should manufacturers spend their time studying power-house economics when by using the same time endeavoring to increase production they might save two or three times the total cost of power?

This is an age of centralization and specialization; when a combination of both is effected the best results are obtained. Only thus can our manufacturers hope to compete with foreign producers. Our small and weak industries should be especially helped. For if they spend the time and money on a steam plant which should be spent in perfecting their machinery and increasing their output, not only are producers going to lose, but the whole country. An electric motor drive costs very little and lends itself ideally to enlargement of manufacturing plants.

Many firms which are now rated high were started with very little capital, and the cost of steam plant, together with land and the buildings to install engine and boiler, was a serious consideration to such an infant industry. For many reasons a boiler and engine cannot be placed in a third or fourth story, while a motor can be placed almost anywhere and at a very small outlay as compared to that of a steam plant. The cost of coal, combined with rental of property on which to erect a steam plant in a city, is often enough in excess of what power could be purchased for from a central station as would make a good working profit for a small manufacturer. Especially is

this true if the manufacturer uses power intermittently for his work or has a variable load. Power that costs $30 per horse-power per year used continually may cost $60, or even more, if used only a few hours each day, for fires have to be kept under the boiler and the rent on property has to be paid whether the engine is doing its work or running idle, while in the case of an electric drive the power could be shut off and expense stopped.

But at once the question is asked, where can we get this power? Because it is to expensive to be developed by the use of the steam engine. If you will only turn back to your September issue of the RED AND WHITE you will find in Mr. McNeely's oration that there is 541,000 horse-power in the large waterfalls of this State that is capable of being harnessed and developed into electrical energy. And there are numerous small waterfalls that he does not mention; he also states that by the use of reservoirs these waterfalls can be made to develop 1,623,000 horse-power, which would be sufficient to operate 4,000 cotton mills as large as the Caraleigh Mill of this place. He also estimates that it would require over seventy-nine million dollars annually to generate this power by the use of coal; while by the use of these waterfalls practically all of the cost there is is the building of the dams and the installing of the machinery. So you readily see that these falls are worth over seventy-nine million dollars per year beside the increase in the output of the machinery by the use of the electrical drive. And also the gain by being able to cut out the power consumption when the machinery has to be stopped on account of a breakdown.

Now in the northern section of South Carolina we find that there is nearly as many horse-power of waterfall capable of being developed. So you see there can be enough of power generated mainly in the piedmont section of North and South Carolina to operate nearly 7,500 large cotton mills.

This section not only has the advantage of this enormous quantity of power, but it is within the borders of the great cotton belt, thereby saving the cost of transportation of the raw material. It is also one of the most healthful sections of the

South because of its mild winters and comparatively mild summers; the temperature averages from 43 degrees in winter to 76 degrees in summer.

If you will only consider the large number of factories generating their own power that are already distributed throughout this section, and add to this the number that will be drawn there by this electrical power, one is led to prophesy that this is to be the leading manufacturing center of the South.

V. P. BYNUM.

## SOIL FERTILITY.

Practically all animals and plants depend upon the soil, directly or indirectly, for their sustenance. Soil is the medium by and in which plants grow. They could grow as well in water if the necessary elements were present in the right form and if there was something to hold the plant rigid. Plant growth depends upon the plant food in the soil in an available form.

One of the big problems confronting most of our Southern farmers to-day is keeping the soil up to a high standard of productivity. There are a great many things tending to deplete the soil. Chief among these may be mentioned the growing of crops on the land year after year without returning anything to the soil; planting the same crop each year; shallow plowing; wanton destruction of the forests by fire or otherwise.

Does the South compare favorably with other parts of the country in the production of crops? No! For the South one acre of land produces ____ bushels of corn on the average compared to ____ bushels for an average acre of western land; ____ bushels of oats compared to ____ bushels for the West; and ____ bushels of wheat compared to ____ bushels for the West. The South has a monopoly on the growing of cotton, and she exercises this privilege unwisely in producing a half-bale to the acre when she should produce a bale.

When America was first settled land was to be had by merely driving down a few stakes. Magnificent trees were burned to clear the land for working. As this land became wornout other tracts were cleared. This has gone on until a timber famine stares us in the face. The forests serve as great reservoirs for holding the water in the ground, and allows it to seep through and feed the streams and surrounding country. But now our forests are for the most part gone and the water carries off a large quantity of the surface soil, rendering the rivers unnavigable and causing great floods to spread out over a large tract of country. Geologists tell us that the Mississippi River alone

carries into the Gulf of Mexico every year 10,350,000,000 cubic feet of soil. Is it any wonder, considering only this one cause of depletion, that our farming lands become poor?

Five hundred million acres of timber land are destroyed annually by fire sweeping over large areas of country. There is a loss of timber, young trees, humus and human lives.

Thomas Shaw says: "The loss of humus is a far greater loss than any other. The vegetable matter so abundant on the surface of the soil in a new country is devoured by the flames. The top soil with all that it contains is turned into ashes. For two or three years good crops may follow because of the abundance of ashes lying over the soil, but the stimulating effects of these are soon lost. The area thus burned over will not recover what it lost by such a conflagration in a score of years, or in a period much longer."

Nothing can live without water. Soils that are deficient in water will never make a good crop. One way to retain the water is deep plowing. Ground which has been broken to a depth of ten inches will hold twice as much water in it as when it has been broken to four inches. Water is necessary for carrying the mineral elements to different parts of the plant. The incorporation of humus causes the soil to act as a sponge, and with abundant humus the power of the land to hold water is increased many times.

The fertility of the soil is dependent upon four principal facts, viz: Plant must breathe; plants must drink; plants must feed; plants must have a proper sanitary environment.

The roots of cultivated plants require oxygen around them for their healthy growth. The cultivation of the soil is necessary for the best development of many crops in order to introduce oxygen and make possible the introduction of more water into the soil. Noxious gases are given off by the plants, and so it is necessary not only to stir the soil to increase the supply of oxygen but to let these noxious gases escape. Air must enter not only for the use of the root itself, but also to oxidize the organic matter given off by the plants. Ventilation to remove

noxious gases might increase the yield without affecting the fertility. Ventilation for the purpose of oxidizing organic matter might affect fertility itself.

The root of plants seek the water rather than the water seeks the plant. The tip of the root is absorbent for water and mineral matter. This portion of the root is absorbent for only a few days, and as the tip of root extends into new fields it ceases to be absorbent. After it ceases to be absorbent it covers itself with a corkey layer of large cells to prevent it from absorbing certain poisonous substances thrown off from the plant.

The soil is an unconsolidated rock containing the minerals which were present in the solid rock from which it was derived. The minerals of the soil are not very soluble, but they are to a slight extent soluble. They are soluble to the extent of about eight parts of phosphoric acid in a million parts of soil; soluble to the extent of about twenty or twenty-five parts of potash per million parts of soil. All soils contain potash and phosphoric acid, but they are not always soluble. The problem then is to keep these elements soluble in the soil. It is an undeniable fact that plants will do better growing in a soil containing these elements in a larger proportion than is necessary for the plants. The soil is very often deficient in nitrogen, but this can be supplied by growing leguminous plants. If soils have sufficient food for the need of plants, and if this supply is constantly maintained by the solution of these minerals in the soil, then what is the function of fertilizers, and what do we mean by wornout lands or exhausted soils?

Plants must have a healthy place to live in. Plants like animals throw off excreta which must be disposed of. When soils are nitrified lime is needed to take care of the nitric acid that is formed. Something must be put on the soil to destroy or change the poisonous substance so that bacteria can themselves go on working. If something is not put on the soil toxic substances will be formed that will themselves seriously affect if not kill the crop. One of the most interesting instances going to show that toxic substances are formed and that what is poison-

ous to one crop is not necessarily poisonous to another crop is a series of experiments carried on by Lawes and Gilbert for fifteen years. They grew potatoes on a soil for fifteen years, and at the end of this time it would not produce any potatoes. It seems strange that, under the old idea of soil fertility, if the soil became exhausted for potatoes it should grow any other crop. This field was planted in barley and this plot that had ceased to grow potatoes produced seventy-five bushels of barley.

It is the business of the soil to take care of the excrement thrown off by the plant. An infertile soil contains colorless organic matter which does the plant no good. By cultivation and aeration we change this colorless matter into darker compounds like humus. Organic matter in the form of humus is not harmful to the plant, but if it is in any other form it may become harmful. The humus loosens up the soil and increases its absorbing effects for water and also is the form of sewerage disposal of the crop. Humus is the drain by which impure matter of soil is taken care of; it means perfect sanitation in the soil.

By growing a crop of cowpeas on land after grain, and turning the cowpeas into the soil, where it will be converted into humus, that land will produce a larger yield of grain than before the cowpeas were grown. The reason for this is that the humus purifies the soil, scours it out and cleans it from the toxic substances left by the preceding crop. The soil does not need more plant food, it needs something to purify it. If enough plant food is returned to the soil to counterbalance what was taken out by a crop, then try to grow the same crop the yield will not be as great. But if humus alone is incorporated the yield will be greater.

A fertile soil, a soil which will produce heavily, is obtained by a rotation of crops in which legumes occupy a prominent place and can be turned into the soil to supply humus.

J. H. BROWN. '11.

## THE MANAGEMENT OF HELP.

In all manufacturing establishments and all kinds of modern work the management of help is one of the most important factors that confront the superintendent or overseer. It is a known fact that the successfulness of a superintendent in any kind of work lies in the way the required work is done or, in other words, his ability to manage his help. This means that the operatives must have interest in their respective departments so that their work may be an enjoyment as well as a necessity to them.

In order to control a number of laboring men the overseer must be a man in the true sense of the word, both morally and socially.

If a political or social question arises in his community, for example, a plan for the betterment of the people, he should uphold the right side of that question as much as possible, both for the good of the people and for his own standing among them. It may not seem to outsiders that this would have any effect, but the laborers always take notice of the overseer's actions, and he must prove himself to be the right sort of man.

An overseer, furthermore, may sometimes be called upon to enter into some social discussions around the firesides of his laborers and this is very likely to take place in the presence of children. In these cases the people always like to connect his name with that which is clean, pure and upright. If this quality is shown at all times it will have effect on the children and they will try to imitate this in future years.

Another good method in managing help is to have a reliable set of overseers of the different departments of the work. They should be interested and careful in the work of the operatives and be courteous to them when a mistake occurs.

An overseer should try to mingle with the operatives in their work, but should not become too familiar with them. Every-

thing in the way of work should be done on a reasonable rigid system.

The overseer should also instruct the men in their work, not only to be master over their machine or department, but also to familiarize themselves with the smaller details and to notice any defects in the running parts. This will enable them to become more interested and do their work better. One man can never know all about any one subject, and a superintendent, whose duty is to keep in touch with all departments, will not come across some of the minor peculiarities of the work in hand. But the man who dons overalls and works around the separate parts may be expected to know. If he does not it is very likely that nobody will. It is a common occurrence for an operative to notice some things in a machine that could be remedied, and encouragement from the man over him might cause him to think more and more on the subject and bring about some new invention. Some operatives, no doubt, have found some of these defects during their working hours, but knowing their overseer or superintendent to be sharp-tongued or indifferent they keep the information to themselves.

In regard to the treatment of help in general, the man in charge should in his duties every day make the men under him feel that if they should come in any trouble or with any new ideas he would consider the matter fairly and decide it right. It must be remembered that a working man is human as well as any one else, and that no better lines were ever uttered than these:

"Do unto others as you would have them do unto you."

E. R. MCCRACKEN. '11.

## THE COMING ELECTRIC POWER.

Probably no one thing is being replaced so rapidly by another as steam is being replaced by electricity. Now, we can hardly realize that it has been so short a time since the beginning of the development of electric power. But when we look around for the reason of the rapid progress it is easily seen. Steam can be transmitted only a short distance and then with great loss, due to radiation, while electricity can be transmitted over several hundred miles with comparatively little loss. An engineer in front of a switchboard has twenty-five times the control that he had before electricity gave him the power to reach over thousands of miles. Small steam engines are, moreover, very wasteful of fuel and often require in proportion to power five or six times as much coal as the giant central stations. With these giants, therefore, is the victory. Power is much easier and cheaper produced in one large engine than in several small ones.

Reports show that each year twenty-five per cent of the steam boilers in towns are replaced by electric motors. Whenever power is needed intermittently or in small units the electric motor undoubtedly has the field. An engine must have up steam all day and requires fuel and constant attention whether it is busy or not. An electric motor goes off the pay list the moment the switch is opened.

In the handling of iron all the way from the ore bed to its issue as pig-iron or steel billets or steel rails, the metal at almost every step is manipulated by electricity. At the works of all large steel manufacturing companies the steam engine which furnished power for cranes, elevators, tilting ladles, shafts and the like are now totally displaced by a round of electric motors. As the ore is received from the mine, these electric motors unload the ore, fluxes and fuel, transport them to the electric furnaces—which have proved superior to all others—and hoist them as they are received from the mine, while a round of trucks, cranes, saws

and shapers, electrically operated, complete the manufacture into beams. These are electrically laden upon railroad cars in less than ten hours after the raw material is rolled into the yard.

Electricity is replacing steam in shipbuilding not less than in metallurgy. In the navy ship yards at Newport News, Virginia, the largest revolving derrick in the world is operated by an electric motor; it handles 150 tons for a diameter of 147 feet. All the modern steamships are now equipped with electrically operated deck cranes instead of the familiar donkey steam engine. They are noiseless in operation and so simple that any common seaman can operate them with perfect ease. All of the modern American battle ships have their towers turned and their large guns loaded, served with ammunition and trained by electricity.

The marine engineer is doing what has already been done by the largest mining and metal-working establishments. Electricity has made it possible and profitable to unite motive power at one large generating station, because it can be instantly distributed over hundreds of square miles.

For another thing, motors do not need the constant attention that a steam engine needs. For example, the packing of piston rods, cylinders and valves, and the continued and costly lubricants, not to mention the danger of explosion. Almost every day we see in the papers where there has been a boiler explosion, which not only destroyed much property, but in almost every case human lives. Only a few days ago the boilers of the Pabst Brewery, in Milwaukee, exploded, destroying thousands of dollars worth of property and one or two lives. The brewery was electrically operated to a certain extent, but steam was the chief motive power. Within eighteen hours after the explosion, transformers had been installed and a 440-volt electric circuit was supplying motors which carried on the work in all the departments of the establishment. The swiftness with which this temporary supply could be arranged is a striking example of the advantage of electricity in an emergency like this.

Electricity is also rapidly finding a place in the heavy railway service. It has been the chief power for street railways for many years, but now it is taking an important place on large roads as well. The Northern Pacific Railroad Company is replacing its steam locomotives with electric locomotives. The water power along their roads enables them to operate the electric locomotive with two-thirds the cost of operating steam locomotives. Besides this, the electric locomotive is kept more continuously in service, gives greater efficiency, makes more mileage and causes fewer delays. The New York Central and Hudson River Railroad Company has devoted six millions of dollars to the electrification of part of their roads. The New York, New Haven and Hartford Railroad Company has just commenced to electrify its roads. The Pennsylvania Railroad Company is making a series of preliminary service runs with the first electric locomotive out of an initial order for twenty-four. It has proved equivalent in wheel arrangement, distribution and general character of the running gear to any two American type steam locomotives coupled permanently back to back. The locomotive has two 600-volt motors, each giving 2,000 horse power and each weighing 42,000 pounds. The locomotive starts a train of 550 tons and exceeds a speed of sixty miles per hour with this load. The electric locomotive is beyond doubt the fastest and most powerful locomotive to-day.

Again, the introduction of the electric locomotive is one of the most marked advancements made in the mine industry in many years. In fact, one of the first electric railways ever operated was a mine tramway, which removed immediately the slow and stubborn mule on the one hand and the smoke, dust, poisonous gases and noise of the steam locomotive on the other. The electric locomotive is neat and clean in every respect, and requires but the fractional part of the attendance which other methods of motive power require, and advances the comfort of the miner in the highest degree.

With the advantages of the electric railway so unquestionably demonstrated in actual practice, it would not be unsafe to say

that within fifteen years steam locomotives in service will be as scarce as electric locomotives were at the beginning of the nineteenth century, and that electric power in general will supersede all other powers of the world. GEO. W. GILLETTE.

# Y. M. C. A.

The Young Men's Christian Association meetings for the past month have been well attended, both on Sunday and Wednesday nights. This is due chiefly to the fact that the Religious Meetings Committee has done its work faithfully and has secured for us the very best speakers possible, the speakers of the month past being Mr. Ferrall, of Meredith College; Mr. Eller, of A. & M.; Mr. Bivens, formerly principal of Trinity Park; Mr. Eldridge, of Raleigh, and Mr. Stanbury, of the Edenton Street M. E. Church, of Raleigh. Each of these men was greeted by a comparatively large audience of men, and each one brought them a message that was well worth the time and effort that it cost to hear him.

The Y. M. C. A. room has become a more popular place than ever this year, from the fact that several additional daily papers and other magazines have been secured for the reading table, a writing table, upon which are kept pen, ink, paper and envelopes for free use by students, and a telephone has been installed. A new electric sign has also been hung over the door of the room.

Post cards of college views, including some of the members of the Y. M. C. A., were recently published by the Y. M. C. A. and sold for a nominal price.

On the night of November 3d, the regular midweek meeting night, a musical and social program was given, at which the roll of the members was called and light refreshments served. Mr. Henley, a former student of the College, and president of the Association, was present at this meeting and made a short talk, saying, among other things, in expressing his satisfaction at the growth of the Association, that it seemed to him the secretary would never get through calling the roll, it was so long, and, said he, "The surprising thing to me is that nearly every one responds to his name." The social committee is planning

the annual "Big Reception," to be given about the first of December.

The calendar committee informs us that this year's souvenir calendar is a thing of beauty, far excelling those of former years, and that it will cost this year only fifty cents.

Mr. Bergthold, the General Secretary, made a trip to Wake Forest College on Monday, November 1st, to address the Y. M. C. A. there.

The following notice has been posted on the door of the Y. M. C. A. room:

THIS ROOM is open for use to all students of the College, WHETHER THEY ARE MEMBERS OF THE Y. M. C. A. OR NOT. In order that it may always be a pleasant place to spend a few spare moments, it is necessary that every occupant observe the following suggestions:

1. Remove your hat upon entering.
2. Place your hat upon hat rack—NOT ON the TABLE.
3. Loud laughing or talking, unnecessary shifting of chairs at the game board bothers those who are trying to study. Be considerate.
4. Keep your feet as near the floor as possible.
5. Everything in the room is YOURS as long as you leave it there (except the Secretary's desk).
6. Please do not remove reading matter from the room without permission. It belongs to the other fellow the same as it does to you.
7. Above all, BE A GENTLEMAN.
8. Remember these things, especially in the absence of the Secretary. In his absence make yourself responsible for your part of the order in the room.

REMEMBER:

There are others in this room.
Your conduct reflects upon your home training.
Every one admires neatness.
The other fellow.
Yourself.

# The Red and White

PUBLISHED MONTHLY BY THE ATHLETIC ASSOCIATION
OF THE
NORTH CAROLINA COLLEGE OF AGRICULTURE AND MECHANIC ARTS.

SUBSCRIPTION:
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For Sale at Room 3, Watauga Hall.

Entered in the West Raleigh postoffice as second-class mail matter.

Students, Professors, Alumni and friends of the college are each and all invited to contribute literary articles, personals and items. All contributions, accompanied by the writer's name, should be sent to the Editor-in-Chief; and all subscriptions to the Business Manager.

Cash prizes are offered as follows $2.50 for the best original story; $2.50 for the best original poem; and $5.00 for the best original paper subject of which is to be taken from American Literature, American political or industrial history, or economics. This last paper must be submitted for publication before the March 1910 issue of the Red and White goes press. The other papers are to be submitted for publication in any issue during the year.

Advertising rates are furnished on application. Advertisers may feel sure that through the columns of this magazine they will reach many of the best people of Raleigh and a portion of those throughout the State.

Charges for advertising are payable after first insertion.



## THE JUNIOR ISSUE.

Although not a new thing with college magazines in general, it is something new to have a *class* issue of our own magazine.

Being a technical school, it is rather difficult to get out a purely literary monthly here. However, when a number is made a strictly class affair, class spirit is aroused and quite a number of students get busy to contribute to make that number a success. Of course, every issue cannot be made a class issue, and, as is the case here at A. & M., neither could every class have an issue; but by having a Junior number or a Sophomore number, some one may be awakened to the fact that he has some literary talent and will recognize in THE RED AND WHITE the best medium for developing that talent. Among our exchanges, and among our readers, the character of this College is determined by our magazine; and as the character of our magazine is determined by the contributions received from the student body, it behooves us to do our best in behalf of THE RED AND WHITE.

As has just been said, it is a very difficult matter to put out a purely literary magazine. This issue, for example, is lacking in stories, but has an abundance of technical material. We intend making our December number a "Foot-Ball" magazine. We alraedy have some articles for this issue, several stories, an essay, etc. Pictures of the individual members of the team, with write-ups from the manager and captain, will accompany.

### COLLEGE ATHLETICS.

If you should try to enumerate the advantages to be derived from college athletics as concerns the one who takes part in them, you would be surprised at the result. Athletic training has in it almost everything that goes to make up a good business man. It gives quickness and alertness; also, athletics make a person cool and of a judging disposition—all cardinal qualities of the business man of to-day. It is the duty of each and every one of us to take part in some form of athletics, either for varsity or class. If you are a "heavyweight," try foot-ball; if lighter, and good at the national sport, take base-ball and track work—well, take them all it. In after-life you will have many pleasant memories of your athletic achievements of former days,

either as a varsity man or as class-team man. A sunny, genial temperament will be yours, too, for few athletes ever view life from any side but the sunny side.

### THE TOWN BOY AND THE FARM BOY.

To what extent does our environment determine our future work in life? What percentage of farmers' sons become farmers, and how many sons of lawyers follow in the steps of their fathers? One thing, at least, we know: while farm boys are going to our literary schools to study to become lawyers and doctors, on the other hand city boys are coming to A. & M. and are being taught how to be good farmers. Strange, isn't it? In both cases the young man is dissatisfied with the vocation of his father, and determines "to try something else." The farm boy who is prepared for college now has learned, however, that to continue his education it is not necessary to study further in Latin, Greek and the classics, but that he may obtain a college course in agricultural work, the occupation of his father and the occupation with which he has been associated from youth up. But "town boys" are learning to be farmers at A. & M., as well as the "farm boys."

### CHAPEL.

Speaking of compulsory chapel, it would be unfair to say that *all* the students attend only because they are required to do so; but there would be a considerable falling-off in attendance were it not compulsory. A song, the reading of a portion of scripture and prayer are without doubt the only proper exercises with which to begin the day's work, and it would be a beautiful tribute to the student body of A. & M. could it be said of them that they attend chapel just to be present each day at these exercises. The fact, however, is, most of them go because they are afraid not to go. It does not seem exactly right that in this free country, where every man is at liberty to worship his God as his own conscience dictates, a man should be required to attend certain

religious functions, whether he wishes to do so or not. Not that we are opposed to attending chapel or even to compulsory attendance, so long as men do not go *only* because it *is* compulsory. No, not that. But we are of the opinion that, since we always have from five to ten (and sometimes more) minutes between chapel and the first class, we could utilize this time in making the chapel exercises more attractive—so attractive that the *compulsory* business would be entirely lost sight of, so attractive that men would want to be there just because it was worth while. How do it? Doubtless it would take some work; it would be worth nothing if it didn't. Wonder if a selection by a quartet, the Glee Club, a solo, or even at least another hymn wouldn't add to the interest? We would even dare to offer a suggestion that the second hymn might very profitably be a national hymn—America, Star-Spangled Banner, Dixie, or such like, and more frequent than those, could it not be our own college song? A large per cent. of our boys don't know that we have a "sure 'nuf" college song; a painfully small per cent. only can sing it, and still less of them know it by heart. Every man should be able to join in the singing of it, anywhere, at any time, without a book.

A very encouraging thing to the student body is the presence at chapel of a few of the members of the faculty. It gives the appearance that they themselves are interested in the devotional exercises of the College; and a student, during his college course, is more inclined to follow the example of his professor than anything else. Now, with all due respect for the members of the faculty, we are inclined to think that it is as necessary for them to attend devotions as it is for the student body, say nothing of the example.

# Locals

Quite a number of old A. & M. men have visited their *Alma Mater* during the last month. Mr. O. F. McNairy, '07, former editor-in-chief of THE RED AND WHITE, was among those here. McNairy is now located in Jacksonville, Fla., being in the employ of the Seaboard Air Line Railway engineering department.

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Mr. S. M. Veile, an E. E. graduate of '05, was on the hill Saturday, 13th. He is now connected with the Pennsylvania Railroad, with headquarters in New York City.

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Lieut. C. T. Marsh visited the College November 5th and 6th. He is very much pleased with his army duties. For the past year he has been stationed at Fort McKinley, Maine.

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Mr. Charles E. Clark, '97, attended the Farmers' Congress. He is engaged in farming near Charlotte, and devotes part of his time to co-operative demonstration work, under the direction of the United States Department of Agriculture.

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Mr. G. Y. Stradley, '03, stopped at the College for a few hours on the 11th, on his way back to Harrisburg, Pa., where he is living now. His work is in Steelton, with the Pennsylvania Steel Company.

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Mr. Howard Simpson, in college from 1898 to 1903, recently spent a day or two in Raleigh. He is in the employ of the Reynolds Tobacco Company, in the capacity of assistant to the chief engineer.

Mr. Frank H. Brown, '08, was a welcome visitor to the College during the Farmers' Congress. He is teaching in the Cullowhee Normal School, in Jackson County, at his old home.

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Mr. Vance Sykes, '06, was at the College a few hours on Sunday, the 7th, to visit his brother, Banks, who is the fifth son of that family to enter A. & M.

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Mr. R. L. Bernhardt, 1900, paid a brief visit to the College on November 6th. He is engaged in the hardware business at Salisbury, his home town, and is doing well.

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Mr. J. F. Reinhardt, who was in college six years ago, attended the Farmers' Congress. He is the third of five brothers who have been here.

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U. S. S. Franklin is with us! The following is taken from *The News and Observer* of November 14th:

"Paymaster Van Patten, who was in command of the U. S. S. Franklin blue jackets, announced that the men had declared themselves adherents of the North Carolina A. & M. in the contest with V. P. I. in Norfolk on Thanksgiving Day and will attend the game, with their big band, their corps of buglers and the Franklin's goat.

"Paymaster Van Patten said it was a great disappointment to Lieutenant Commander Chadwick that he could not be in Raleigh, and that in the name of the good ship Franklin he wished to thank the people of Raleigh and the faculty and students of the A. & M. College for the reception accorded the men of the ship."

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The following invitation was received last month by the C. E. Seniors, who regret very much that they did not have same published in the last issue of THE RED AND WHITE:

"Mr. and Mrs. Harvey Hoyt Cribbs request the honor of your presence at the marriage of their daughter, Yanita, to Mr. Car-

roll Lamb Mann, on Wednesday evening, the 20th of October, at 8 of the clock, Christ Church, Tuscaloosa, Alabama. At home after November 1st, Raleigh, North Carolina."

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Every year the Y. M. C. A. publishes a beautiful souvenir calendar of the College, containing various views of the College and the battalion. These calendars are a creditable souvenir and make a beautiful Christmas present to send to friends. This year's calendar exceeds in beauty all previous publications. It has a specially designed cover in College colors, and comes in an envelope, ready to mail, and costs only 50 cents. The calendar will be ready for sale by December 10th or 15th. Everybody should have one.

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On the 8th day of November Mr. E. L. Winslow, '10, received a telegram announcing the illness of his father. Mr. Winslow immediately left for home, but his father died before he reached there. His classmates extend to him their deepest sympathy.

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The students are busy learning and practicing new yells for the Thanksgiving game, under the supervision of Messrs. Jones and Hicks. Let every student come out and support this important work. We not only want to win the game, but want to excel V. P. I. in rooting, too.

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The Farmers' National Congress met this year in the South for the first time, their sessions being held in our College auditorium. Quite a number of distinguished men were present, representing nearly all the States of the Union. One distinguished speaker of the occasion was Ambassador Bryce, Great Britain's representative to the United States.

## DANCE.

The November dance of the Thalerian German Club was given Saturday night, November 13, 1909. The dance was led by Mr. J. L. Springs, dancing with Miss Narnie Rogers. Those dancing were: J. E. Beaman with Miss Frances Lacy; J. L. Springs with Miss Narnie Rogers; I. N. Tull with Miss Lizzie Rogers; W. E. Blair with Miss Griselle Hinton; R. F. Jones with Miss Kramer, of Durham; J. B. Park with Miss LaMar; E. D. Scott with Miss Josephine Boylan; T. T. Dawson with Miss Nannie Hay; T. S. Bond with Miss Anne McKimmon; R. W. Hicks with Miss Elizabeth Thompson; N. S. Lachecotte with Miss Ethel Rogers; W. E. Winslow with Miss Cowper; C. M. Taylor with Miss Lucy Moore; C. A. Stedman with Miss Daisy Haywood; Professor Faulkner with Miss Fannie Young; J. J. Summerell with Miss Chamberlain; J. J. Gantt with Miss McClenegan; Mr. Etheridge with Miss Juliet Crews; Mr. Adams with Miss Louise Karr, of Cincinnatti, Ohio; Mr. Richard Holt with Miss Alston Dargan; Mr. A. M. Noble with Miss Mildred Sanders, of Smithfield, N. C.; Mr. G. L. Roberts, of Atlanta, with Miss Briggs; D. C. Thomas with Miss Gwyn, of Elkin, S. C.; Mr. Thompson with Miss Tyer; Dr. Pegram with Miss Whitfield.

*Stags*—Haywood, Holden, Hardie, J. L. Scott, Harris, Gordon Smith, Jim McKimmon, MacClain, Poisson, Laney, Stephens, Long, Thompson, Howard, Lee, Sanders, Von Eberstein and Walton.

*Chaperones*—Mrs. W. M. Holt, Mrs. Latta, Miss Daisy Thompson and Miss Burkhead.

## ATHLETIC HOP—FIRST OF THE SEASON GIVEN AT THE A. & M. COLLEGE.

The first athletic hop of the A. & M. Athletic Association for this season was given last Wednesday night in Pullen Hall. The dance was led by Mr. J. L. Springs, dancing with Miss Willa Norris.

Those dancing were: E. Lee with Miss Isabel Young; N. H. Lachecotte with Miss Elizabeth Thompson; T. T. Dawson with Miss Ethel Rogers; Mr. Jeffries with Miss Burbank; R. W. Hicks with Miss Bessie Howard, of Norfolk, Va.; J. E. Beaman with Miss Sinclair; W. R. Saunders with Miss Ruby Norris; E. L. Winslow with Miss Winslow, of Baltimore, Md.; "Buck" Harris with Miss Josephine Boylan; Miles Clark with Miss Fannie Young; Mr. Thompson with Miss Mary Hughes; E. P. Bailey with Miss Irene Lacy; Mr. Armbruster with Miss Betsy London; J. M. Sherman with Miss Juliet Crews; E. H. Smith with Miss Nannie Hay; Gordon Harris with Miss Narnie Rogers; Mr. Smith with Miss Elizabeth Rogers; C. A. Stedman with Miss Ann McKimmon; Mr. McNider with Miss Myers; James McKimmon with Miss Louise Lamar.

*Stags*—Fred. Poisson, L. J. Poisson, Jim Hackney, Frank Winslow, George Wood, Dr. Pegram, Hardie, Thompson, Adams, J. L. Scott, Oberchain, Roy Hampton, J. B. Park, Guin, G. W. Ross, J. M. Harden, E. V. Freeman, C. W. Spruill, R. F. Jones, J. E. Brown, W. B. Watts, J. C. Gurley.

*Chaperones*—Mesdames Norris, Lee, McKimmon.

## COLLEGE DIRECTORY.

### THE BIOLOGICAL CLUB.

J. M. Gray----------President
J. H. Brown----------Vice-President
C. L. Cruse----------Secretary

### RURAL SCIENCE CLUB.

L. A. Higgins----------President
F. T. Peden----------Vice-President
M. R. Yarborough----------Secretary

# Athletics

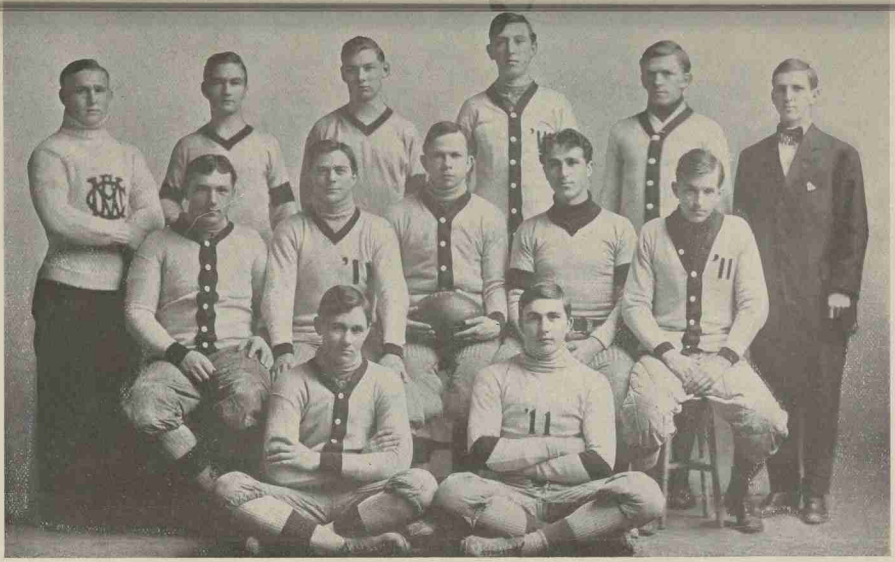
FOOTBALL.

Dr. Joel Whitaker has very ably written up the Kentucky game which we are publishing herewith.

October 21st the A. & M. College met the strongest team she has ever played in North Carolina, the University of Kentucky, winning by the score of 15 to 6. The Kentucky team ranks close to the big teams of the middle West in strength. The styles of play of the two teams varied greatly, as also did the defense. Kentucky's strongest plays were end runs, particularly by their brilliant captain, Barbee, and a short forward pass. In this last play the man carrying the ball would go toward end until at just the moment that he was tackled, when he would make a short forward pass to his own end, who had advanced five or ten yards. This play had to always be watched for by the A. & M.'s secondary defense.

The A. & M. team did not strike its place or play its best game until Stevens had felt out the Kentucky team in the first half, and then, aided by what Coaches Green and Thompson had seen from the side line, the style of attack was changed; also the style of defense, to the extent of moving Stafford and Von Glahn out a little wider to check Barbee's end runs and make it more difficult for him to get clear.

Stevens ran his team beautifully in the last half, but twice in the first half he should have tried a short kick, rather than a field goal; and also he should have felt along the line and found a place he could gain, and smash the line, rather than the forward pass near Kentucky's goal, especially when the Kentucky ends were playing wide and back, just to check this particular play. The play would have been good on almost any other style of defense.



Junior Football Team.

Hartsell, of the A. & M., gave his team the first three points by his drop kick from the twenty-yard line, which he got off beautifully. He was probably given a little more time to get off his kick, as the Kentucky team was not sure what was coming; but upon the other two occasions, when he tried for a field goal, the Kentuckians exerted all their efforts to get to Hartsell, which they did in time to spoil his kick badly, and on one of those occasions came dangerously near scoring a touchdown on the A. & M. by securing the ball after it was blocked.

Only a few minutes after the A. & M. had scored three points, Kentucky secured the ball about A. & M.'s thirty-five-yard line and far to the east side of the field, which favored Barbee in his runs, which he pulled off by his speed alone and by the A. & M.'s end and tackle being a little too close in to force him back before making his turn down the field. Hartsell's speed also told in the second half by checking this dangerous back, time after time, with little or no gain, but in the second half Stafford was playing wider.

For the A. & M. style of play Keasler was almost indispensable, and without his powerful rushes into the line and smashing interference the A. & M. would have had great difficulty in gaining ground with her other backs; and often when a man would go for an extra yard or two the people would not recognize that Keasler's interference made it possible. Stevens always stands out in the brilliancy of his plays, and both of the A. & M. touchdowns were greatly due to his individual runs. He would have scored both touchdowns for the A. & M., but in his first effort he unfortunately ran a yard outside of the side line, eight yards from the goal, but near enough for Keasler to smash through with Long's assistance for the touchdown. Stevens himself scored the second touchdown for the A. & M., after a brilliant thirty-five-yard run.

Floyd and Von Glahn and Seifert all played well, and once Bray reminded me of Cunningham, the old University of North Carolina center, by passing the ball for a kick and getting down the field fast enough to down the man with a one-yard gain.

The A. & M. team is easily the best in the history of the institution at this time of season, and the men all certainly know more of the individual game than has ever been known by an A. & M. team before, due to Eddie Green and Frank Thompson's coaching.

There was an important decision against the A. & M. in the first half, when she had the ball on Kentucky's fifteen-yard line third down, when Hartsell was preparing to kick. The A. & M. team had nothing to gain by killing time, but all to lose, and certainly was doing nothing to intentionally delay the game, but Referee Donnelly took the ball away from the A. & M. and gave it to Kentucky as the penalty for delaying the game intentionally. It was clearly an unintentional mistake on his part, although in the strictest lettering of the rule he would be upheld in this decision. He asked me what I thought about it, and when I told him that I thought he had made a mistake the tears came to his honest blue eyes as he said: "I did what I thought was right, and would give all I have on earth rather than have anyone think I'd do a thing like that intentionally." He is a most capable official, but strict.

FIRST HALF.

Play began at 4:12; Shanklin, of Kentucky, kicking toward the north goal for forty-five yards, Stevens receiving the ball for A. & M. and returning it ten yards. Long, of the Farmers, hurt in scrimmage. Keasler gained two and a half yards through right guard, Long following for four yards through the same hole. Stevens kicks twenty-five yards.

Kentucky.—Rodes advances through line seven yards. A. & M. was penalized five yards on account of Dunn's being offside. Barbee's kick was blocked up by Von Glahn who secured the ball.

A. & M.—Hartsell gained eighteen yards around right end. Keasler gained four, and Seifert made the necessary six on a forward pass from Stevens. On the first down Keasler went through the line for four yards. A foul forward pass penalized

A. & M. fifteen yards. Stevens kicked to Kentucky's twenty-yard line, Barbee returning the ball five yards.

Kentucky.—Shanklin kicked, Hartsell receiving the ball and being thrown on the forty-three-yard line. Johnson Kentucky's quarterback, hurt.

A. & M.—Long advances five yards. Dunn fails to gain. Stevens outside kick for thirty-five yards, and Long gets the ball from Kentucky's fumble on Kentucky's nine-yard line. A. & M. is penalized five yards. The ball is passed to Hartsell, who kicks pretty goal from field. Time, ten minutes.

Score—A. & M., 3; Kentucky, 0.

Kentucky.—Shanklin kicks to A. & M.'s five-yard line, Long receiving the ball and returning it fifteen yards. Stevens tried right end for no gain. Stevens kicked for only twenty yards.

Kentucky.—Barbee made a dash through the line for fifteen yards to A. & M.'s eight-yard line. Rodes bucked the line for three yards, and Barbee circled end for the touchdown. Time, five minutes after kick-off. Shanklin punted out to the fifteen-yard line and kicked an easy goal.

Score—A. & M., 3; Kentucky, 6.

A. & M.—Stevens kicked off to Barbee on Kentucky's fifteen-yard line, Barbee receiving the ball and returning same twenty-five yards. Kentucky was penalized fifteen yards for foul forward pass. Ball on Kentucky's nine-yard line. Shanklin kicked forty yards to Stevens, who recovered five yards.

A. & M.—Stevens went around left end for three yards. A. & M. fumbled, but Hartsell recovered the ball, but made no gain. Stevens kicked for no gain. Kentucky fumbled, but regained ball, and Shanklin kicked thirty yards to Stevens, who was downed on his tracks.

A. & M.—Keasler went through right tackle for seven yards. Dunn made it a first down, going through left tackle. Long followed with four yards over right tackle. Keasler went through the same hole for ten yards. A. & M. had found Kentucky's weak spot. Hartsell went around right end for fifteen yards; Long walked through the weak spot for five, but Stevens' forward pass to Stafford, who was substituted for Haines, failed to

gain. Stevens tried for goal from field, but Kentucky broke through and blocked kick.

Kentucky got the ball and Shanklin kicked forty-five yards to Stevens, who returned fifteen yards in a pretty run. A. & M. penalized fifteen yards for Keasler's hurdling. Seifert gained two yards and Keasler went over right guard for five yards. Stevens kicked and Seifert downed the Kentuckian in his tracks as he caught the ball.

Kentucky.—Shanklin kicked thirty yards to Stevens, who regained two yards of the distance. Keasler went through right tackle for two and a half yards. Stevens failed around the end, losing one yard. Stevens kicked thirty-five yards to Johnson on Kentucky's five-yard line.

Kentucky.—Shanklin kicked for forty yards.

A. & M.—Keasler hit the left tackle for five yards. Long failed to gain. The ball was on Kentucky's ten-yard line and A. & M. was preparing to try another goal from field, with only a few seconds left to play, when the ball was taken from them on a charge that they were delaying the game.

Kentucky.—Shanklin kicked fifty yards, and time was called, the ball being on the A. & M. forty-yard line.

End first half. Score—A. & M., 3; Kentucky, 6.

SECOND HALF.

Stevens kicked off for A. & M. to Kentucky's fifteen-yard line, Barbee running it back twenty yards. Shanklin made a pretty run for twenty-two yards on a fake kick play. Plumber was outrun and caught by Seifert for a loss. A. & M. is penalized five yards for offside play. On a forward pass from Barbee to Shanklin, Hartsell tackled the Kentucky man for a ten-yard loss. Shanklin kicked to Stevens who made a thirty-five-yard dash, with good interference.

A. & M.—Keasler went through right guard for seven yards and was slightly hurt. Long went through right tackle for six. On the first down Long gained seven yards, but A. & M. was

penalized five yards again for offside playing. Stevens kicked outside at Kentucky's twenty-yard line.

Kentucky.—Shanklin kicked and Hartsell recovered five yards.

A. and M.—Keasler made five yards over right tackle. Long failed in the same spot. Stevens made his third try at goal from field, but Kentucky blocked the kick and got the ball on the A. and M. fifty-yard line.

Kentucky.—Shanklin failed to gain through left tackle. The first down was gained on a pretty forward pass from Barbee to Shanklin. Rodes lost two yards by Long's hard tackling. Barbee failed around right end. Third down, fourteen yards to gain, Shanklin kicked to Hartsell and Kentucky was penalized fifteen yards for interfering with a fair catch.

A. and M.—Keasler gained one yard. Hartsell lost five and Stevens kicked to Kentucky's thirty-third-yard line.

Ball taken away from A. and M. Reason not announced.

Kentucky.—Plumber gains four yards. Shanklin kicked forty yards to Hartsell, who returned it twenty yards.

Another exchange of kicks and Stevens carried the ball to Kentucky's eight-yard line.

A. and M.—Keasler went through right guard for five yards. On a bad forward pass the ball was recovered and Long made two and a half yards. On the second down, with the ball on Kentucky's three and half-yard line, Keasler went through right guard again for three yards and then between right guard and center for a touchdown. Stevens kicks goal. Sixteen minutes after kick-off.

Score: A. and M., 9; Kentucky, 6.

Kentucky.—Shanklin kicked to Hartsell on A. and M. ten-yard line, Hartsell recovering fifteen yards.

A. and M.—On a beautiful forward pass from Stevens to Seifert there was a gain of twenty-five yards. Dunn gained four and one-half yards over tackle and A. and M. was penalized fifteen yards for holding. Stevens kicked and Kentucky fumbled, A. and M. regaining the ball. Keasler gained two yards.

Hartsell failed around left end. Stevens kicked fifteen yards outside.

Kentucky.—Rodes fumbled, losing five yards. Shanklin kicked twenty-five yards to Hartsell, who regained five yards.

A. and M.—Long, on cross work, gained two yards. Keasler gained two and one-half and with five to go on the third down Stevens kicked to Kentucky's twenty-five yard line, the distance being held by Dunn's fine tackle.

Kentucky.—Shanklin kicked to Stevens, who made a beautiful run for forty-two yards for a touchdown.

Stevens punted poorly to Seifert, the ball being placed on the thirty-yard line on the side of the field. Stevens kicked a hard goal.

Score: A. and M., 15; Kentucky, 6.

A. and M.—Stevens kicked twenty-seven yards. Kentucky fumbled. Kentucky's quarter-back, Johnston, made a bad pass to Shanklin for a kick and lost fifteen yards. On the next try, with twenty-five to gain, Shanklin kicked thirty yards to Keasler.

A. and M.—Keasler gained one yard. Then Long failed to gain. Stevens kicked twenty-five yards and Bray got the man in his tracks.

Kentucky.—Shanklin kicked twenty-five yards. Time was called with the ball on Kentucky's forty-yard line.

Score: A. and M., 15; Kentucky, 6.

Summary.—Goals from field, Hartsell 1. Touchdowns, Barbee 1; Keasler 1. Time of game, 1 hour and 20 minutes.

Umpire, Mr. Wyckoff, of Syracuse. Referee, Mr. Donnelly, of Trinity (Hartford, Conn.) Field judge, Mr. Myers, of Harvard. Linesmen, Lassiter, of A. and M., and Shelby, of Kentucky. Attendance, 1,700.

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### A. & M.—WASHINGTON AND LEE.

October 6th A. & M. played Washington and Lee at Lexington, Va. The game was very interesting and was won by a small score, yet A. and M. should have scored several touch-

downs, but owing to a little dissatisfaction among the team they did not work good that day.

Washington and Lee has a good team, and never have I seen a team fight so hard as they; and, too, the whole student body are behind them from beginning to end.

Von Glahn was out of the game on account of an injured knee.

Seifert, A. and M.'s plucky end, was hurt in the game and just got out of the hospital. Hartsell also got an injured knee in the game, and has not been able to report for practice since.

Score: 3 to 0.

The game between A. and M. and United States Steamship Franklin was one of the most stubbornly contested games ever witnessed in Raleigh. Every inch of the ground was fought for. A. and M. was handicapped considerably by having three of her best players out of the game (Von Glahn, Hartsell and Seifert), yet they put up one of the best games of the season.

The U. S. S. Franklin made a fight that will be notable in the history of athletics in Raleigh. At times they seemingly had victory in their grasp, but A. and M. would rally at the crisis and drive the sailors back inch by inch; and while it looked as if the result would be a drawn battle yet, in the latter part of the last half, A. and M. carried the ball over, winning the game. Victory was deserved, because of the gallant fight that was made. It was brawn against brawn, and that A. and M. won is no discredit to her adversaries, who proved to be foemen worthy of the attack of any football team.

The game was called at 3:30 and was witnessed by two thousand (2,000) people, one of the largest crowds that has ever assembled on the field this year.

The bluejackets brought along 700 of their mates to cheer them to victory, and they did their part. The athletic field has never before heard such yells as they gave vent to. The A. and M. cadets broke all records as to rooting during this game. Never in the history of the college did the boys support the team as they did against U. S. S. Franklin. With this spirit

in the student body A. and M. expects nothing but victory from V. P. I. Thanksgiving.

There were stars on both sides, but the most spectacular player was Stevens, A. and M.'s plucky quarter-back. He received a punt and ran 75 yards through Franklin's whole team, but was overtaken by Franklin's ten-second man and downed on the twenty-five-yard line.

In the first half neither goal was in danger, but the ball was kept in Franklin's territory most of the time.

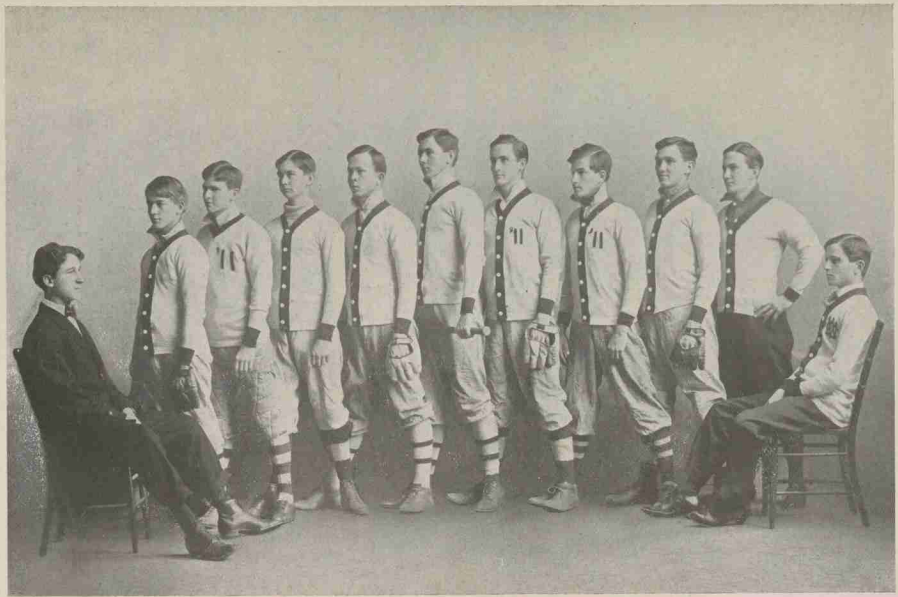
In the second half Glenn relieved Keasler at half-back, and Keasler was put in tackle, where he played a good game. Lassiter relieved Long at full-back.

On the kick-off A. and M. advanced the ball for twenty yards, and from then on A. and M. carried the ball right down the field until within striking distance of the goal. Here they were penalized for fifteen yards, which forced them to try for goal from field. Stafford failed to kick goal.

Franklin brought the ball out and put it in scrimmage on twenty-five yard line. They made two downs with no gains, and then they tried to kick. Captain Bray broke through and blocked the kick. Ball went over to A. and M. With ball on one-foot line A. and M. scored a touchdown. Only a few minutes were left for play. Every man on the team played his position well, especially Mott at guard and Dunn at tackle. A. and M. ends were outweighed by fifteen pounds, yet they made it interesting for their opponents.

Score: 5 to 0, favor A. and M.

M. C. L.



## CROSS COUNTRY EVENT.

As was stated in the last issue of the RED AND WHITE a cross country run will be held in December, probably about the 11th of the month. Every student in college, of any division or class, will be eligible to compete for honors in this event. The course will probably be about three and a half or four miles in length, and it is hoped as many as can will take part. Seven good prizes have been secured for the first seven men to finish, for which we are indebted to Prof. Schaub, Whiting Bros., A. C. Hinton, H. Mahler's Sons, Herbert Rosenthal, Cross & Linehan and Weathers & Perry.

At present about fifteen or twenty men are training hard, and it is expected this number will be greatly increased as soon as the Thanksgiving game has been played. Among those who are showing up especially well are: Bowditch, Babington, Stansell, Walton, Small, Bryan, Eason, Trotter, Nichols and Parrish.

The winner of the race will be given first choice of the prizes, the second man second choice, and so on. Prof. Schaub, who originated the idea, has offered as a prize a five-dollar sweater. The other prizes are:

Whiting Bros.—A five-dollar jersey.

A. C. Hinton—A fancy vest.

H. Mahler's Sons—A set of cuff buttons and scarf pin.

Herbert Rosenthal—Pair of shoes ($3.50 value).

Cross & Linehan—Hat ($3 value).

Weathers & Perry—An A. and M. pennant.

Every one should compete for these prizes. They are free to the winners; perhaps one of them is for you; come out and see. Longboat had no idea that he was a winner until he was accidentally left in town and had to run twelve miles to overtake his father's market wagon. If you intend trying for baseball this work will get you in excellent shape during the off-season and leave you in good condition to start the spring work.

J. M. S.

# Grinds

One of our bright electrical students says Prof. J. W. Harrelson's hands and feet are connected in series.

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Mr. Owen: "Well, Mr. Smith you have missed 11 o'clock inspection again; what was the matter?"

"Fanny" Smith: "The street car ran off the track and I could not get back in time."

Mr. Owen: "Well, Mr. Smith, your feet don't fit a limb, and your name does not mean owl, so you had better stay in at nights."

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Prof. Parks has one of the improved Forbite engines of one L. B. P.

Note: L. B. P.—Lightning bug power.

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Dr. Harrison: "What is meant by style Mr. Tull?"

Ike Tull: "Can't say, professor, I'm not much of a dude; ask Spat Dawson."

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Mr. E. B. Owen, the registrar, loves to tell the following story on Lieut. Moody, especially when he can corner Moody off with a crowd so that they may all watch him color up. It was back in those days when Moody was a peaceful Freshman, living up on the fourth floor of Main Building. One night Mr. Owen had occasion to go up there, perhaps to stop some noise among those peaceful Freshmen; at any rate he went up. Just as he turned into the hall he saw Moody, with a dipper full of water, tipping up to the open transom of a fellow Freshman. He was just in the act of throwing the contents of his dipper through the transom when he happened to look up and see Mr.

Owen. Mr. Owen says Moody looked funny at first, but it didn't take him long to make up his mind what to do. Calmly he put the dipper to his mouth, drank every drop in it, smacked his lips, and went back to his room as innocent as you please.

---

"Battalion, attention!—One minute please. If the one who removed my cigar butt from my office window while I was out of town last week will return it I will greatly appreciate it."

At this juncture Major Jordan becomes ill and leaves the mess hall.

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Prof. Riddick: Mr. Dawson, you remind me of a joke, but it is not a good joke so I won't tell it.

---

Tommy Hoskins (writing to his girl): I have one whole hour of drill to liquidate this evening from 2 to 3 respectively, so I must close.

---

Phyllis (in hospital): "It's a wonder to me dey ain't mo' of dem boys in here, den whut is. Why I seed er whole passle uv 'em running by my house last week widout anything on 'cept their underclothes."

---

Brown, J. H., in his write-up to the *Charlotte Observer*, said, in regard to the Geissler tubes of the electrical exhibit at the fair: "The various colored *candles* attracted a lot of attention."

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"Buxton is my name, B-u-x-t-o-n," said that individual to the librarian, "I want to take out this book, I have forgotten my registration card."

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Bencini (coming into Stanback's room): "Stanback, if you'll come over here and 'ram' this Freshman for knocking on his radiator I'll set you up to a dope."

Stanback (to Freshman, one minute later): "Sir, the molecular vibratory motion set up by your bringing that hammer in

juxtaposition with your radiator is rather grating on the nerves; a cessation of same p. d. q. will be infinitely appreciated."

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A certain Freshman—we forgot to get his name—is very desirous of procuring a copy of "Jesse James." He says there isn't a copy in the library.

---

AT THE STATE NORMAL.

Miss Kirkland: Well, Dr. Dunn, whom do you wish to see?

Lonnie: Miss Dunn.

Miss K.: And what is your name?

Floyd: Pr-pr-pr Floyd.

Miss K.: And whom do you wish to see?

Floyd: N-n-nobody. I j-j-just c-c-come along w-w-with Lonnie?

---

Tommy Parks: "Quit talking to me about the calf sneezing brand in my face, go talk to Strawberry Jones."

---

Prof. Riddick: Mr. Jones, do you understand this problem?

Strawberry: Yes, sir.

Prof. Riddick: Well, there's no use for me to explain it then, for I guess everybody else does.

---

"G" Gillette: "Old Lady," how many went on autoing with you this p. m.?

"Doc" Best: Seven besides the sofa (chauffeur).

---

A Freshman on delinquent drill Saturday asked for permission to "liquidate" (adjust) his belt.

---

Fresh Crowell (at Barnum & Bailey): "I would like to see those giraffes race on a macadamized road all covered with green grass like we have in Concord.

---

Moody (on drawing class): "Professor, may I be excused? Give me a match."

He who expects to rate as a gladiator
Must not expectorate behind the radiator.

---

We wish Frank Hawks would show us some of those prongs on the Evening Star he has been seeing.

---

R. L. Morgan (to Prof.): "How many pounds of steam will one pound of water make when vaporized?"

---

Fresh: "Have you got three conditions on tactics?"

Armfield: "Yes, that's all; how many terms do you think I took it."

---

When Mr. Bergthold called for three good-looking ushers for the Farmers Convention Casper, Sturgill and Mayes volunteered.

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Reward—For the first year man who drank Mr. Reeves cylinder oil from out his coffee pot which stands on top of the dairy engine.

# Clippings

### Revolting Conversation.

"Watt-hour you doing there?" asked the boss.

"Eatin' currents," replied the apprentice, shamefacedly. "Anode you'd catch me at it."

"Wire you insulate this morning, anyway?" demanded the boss.

"Leyden bed."

"Wouldn't that jar you! Can't your relay-shunts get you up mornings?"

"Fuse going to do that every day you can take your hat and go ohm," replied the boss, and the circuit was broken right there.—Exchange.

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"Where are you going, my pretty maide?"
"I'm going to love you, sir," she saide.

"Why do you want to, my pretty maide?"
"Oh, I don't want to, sir," she saide.

"Then why should you do it, my pretty maide?"
"Simply for practice, sir," she saide.

—Lippincott's Magazine.

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### The Battle of Bostontown.

Constructively to right of them,
Allegorically to left of them,
Metaphorically in front of them
The imaginary instruments of war constructively thundered;
It was theirs to cogitate upon the reason why,

So that they might differentiate between those who should constructively die
And those who, constructively overwhelmed, should fly—
Otherwise, some responsible head might have blundered.

Into the supposed jaws of death,
Into the for-the-sake-of-argument jaws of perdition,
Stormed at with theoretical shot and shell,
Rode the metaphysical six hundred;
Bridges succumbed to metaphorical stress,
The constructive heroes perished apparently at the moment of success—
Fatally wounded in the subliminal consciousness,
While, constructively, all the world wondered.

Honor, mathematically, the charge they made.
Euclid's theorems for the part they played,
While the differential calculus and logarithms in mines constructively laid,
Detonated and left the ranks constructively sundered—
Subtracted from the constructive jaws of death.
Letting "x" equal the theoretical jaws of perdition,
The problem is to solve the equation trigonometrically
And we shall have the remainder of the six hundred, constructively.

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### BRINGING THEM UP.

"Airships are just in their infancy."
"Yes, and they're mighty hard to raise."

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### THE OLD, OLD STORY.

"Don't chide me for carrying a revolver. This little gun saved my life once."
"How exciting! Tell me about it."
"I was starving and I pawned it."

### GOLDEN SILENCE.

Tom: "Say, did you ever kiss a girl in a quiet spot?"

Jack: "Yes, but the spot was only quiet while I was kissing it."

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### AFTER OLIVER.

My sense of sight is very keen,
  My sense of hearing weak.
  One time I saw a mountain pass,
But could not hear its peak.

Why, Ollie, that you failed in this
  Is not so very queer,
To hear its peak you should, you know,
  Have had a mountaineer.

But if I saw a mountain pass,
  My eye I'd never drop;
I'd keep it turned upon the height,
  And see the mountain's top.

I didn't see the mountain pass,
  Nor hear its peak, by George;
But when it comes to storing stuff,
  I saw the mountain gorge!

The mountain, peaked at this,
  Frowned dark while Ollie guyed;
A cloud o'erspread its lofty brow,
  And then the mountainside.

If Ollie could not hear its peak,
  Or song of any bird,
Of lambs, or cows upon its slope,
  Be sure the mountain herd.

### CONCERNING THE EDITOR.

An editor iz a male being whose buzziness it iz to navigate a nuzepaper. He writes editorials, grinds out poetry, inserts deths and weddings, and sorts out maneskrips, keeps a waste-basket, blows the devil, steals matter, fites other people's battles and sells hiz paper for a dollar and fifty cents a year, takes white beans and aple saas for pay when he can get it, raises a large family, and works nineteen hours out of every twenty-four, knows no Sunday, gets dammed by everyboddy, and once in a while whipped by somebody, lives poor, dies middle-aged an often broken-hearted, leaves no money, iz rewarded for a life uf toil with a very short free obituary puff in the nuzepapers.—"Josh Billings" (Henry W. Shaw), in "Every Boddy's Friend."

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There is said to be a sign in some restaurant here:

"Man is made of dust:
dust settles.
Be a man!"

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### MILDRED THE WISE.

Mr. Phan (roaring from the top of the stairs): "Mildred! What is that young man doing down there so late?"

Mildred (sweetly): "He's just doping out how the teams will finish for the pennant."

Mr. Phan (mollified): "All right. Tell him to take his time, not overlooking past performances and the possibility of a slump, and when he gets done he can compare with my list behind the clock on the bookcase."

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### HE HELPED.

The brakeman was a novice, and on his first run here there was a very steep grade mount. The engineer always had more or less trouble to get up this grade, but this time he came near

sticking. He almost lost his head. Eventually, however, he reached the top.

At the station that crossed the top, looking out of his cab, the engineer saw the new brakeman and said, with a sigh of relief:

"I tell you what, my lad, we had a job to get up there, didn't we?"

"We certainly did," said the new brakeman, "and if I hadn't put the brake on we'd have slipped back."

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### A TALE OF A WAG.

A sentry while on duty was bitten by a valuable retriever, and drove his bayonet into the dog. Its owner sued him in the county court for its value, and the evidence given showed that the soldier had not been badly bitten after all. "Why did you not knock the dog with the butt end of your rifle?" asked the judge. The court rocked with laughter when the sentry replied: "Why didn't he bite me with his tail?"

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### NEAR POETRY.

(With apologies to Bill Manning.)

There ain't no nothing much no more,
And nothing ain't no use to me,
In vain I pace the lonely shore,
For I have saw the last of thee.

I seen a ship upon the deep
And signaled this here fond lament,
I ain't done a thing but weep
Sence thou hast went.

Alas and I ain't one o' they
What hain't got no faith in love,
And them fond words of yisterday
Was spoke true by heaven above.

Is it all up twixt I and you,
Will you go wed some other gent?
The things I've did I'd fain undo,
Sence thou hast went.

O friend I done what I have did
Without no thought of no offence;
Return, return I sadly bid,
Before my feelings get intense.

I have gave up all wealth and show,
I have gave up all hope of fame,
But O what joy 'twould be to know
That thou hast came.—Selah.

---

(How appropriate, the following, for our Thanksgiving turkey!)

SEVEN AGES OF TURKEY.

All the world's a platter,
And all the men and women merely eaters;
They have with them always their appetites,
And one turk in his time plays many parts,
His acts being seven ages.
At first the roast,
Reposing grandly on the groaning board,
Flanked by rich dressing and cranberry sauce,
A dainty dish to set before a king.
Then warmed-over bird, served up next day,
Lest we forget the Yuletide's merry meal,
Then the cold cuts, at luncheon and at tea,
Still succulent—if you do like cold cuts.
Next comes the stew, yclept a fricasee,
With dumplings made to fatten up the dish,
And which, forsooth, do cause us many groans,
And pangs of indigestion.
Then croquettes

Garnished with parsley cunningly, and mixed
With what suspiciously doth taste like veal;
And so they play their part.
The sixth age shifts
Into the lean and languid turkey hash,
Reposing on a slab of soggy toast,
A bitter aftermath of glories past,
For toothless age. Last scene of all,
That ends this strange, eventful history,
A skeleton, a rack of clean-picked bones,
That finds its dismal way into the soup
Of second childishness and mere oblivion;
Sans breast, sans legs, sans wings, sans everything.

—Exchange.

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A TOAST.

Here's to our wives,
They fill our lives,
Like busy bees, with honey.
They ease our shocks,
They darn our socks,
And spend most all our money.

---

Pat: "What be yer charges for a funeral notice in yer paper?"
Editor: "Fifty cents an inch."
Pat: "Good heavens! And me poor brother was six feet high."

---

SHE TOOK EVERYTHING.

She took a long kind look at me,
She took my hand in childlike glee—
This was the night I met her—
And then she took me 'neath a bower
Of plants and things, and took an hour
To bind my silken fetter.

She took my Fido, prince of pets,
She took my tons of violets—
Oh, ladies—sweet beguilers!—
She took my gloves, she took my books,
She took my sighing, ardent looks,
She took my costly Huyler's.

She took my drives, she took my walks.
She took my dances and my talks,
This charmingest of misses.
She took more time than I could spend,
She took—well, just before the end,
She took some harmless kisses.

She took my ring, of course, next day—
(Our courtship went the proper way—
Oh, this is nothing yellow!)
She took more troths than I can pen:
In short, she took me in, and then
She took the other fellow.

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The following touching and remarkable document was left as his last will and testament by Charles Lounsbury, who died insane in the Cook County Asylum, Dunning, Ill.:

"I, Charles Lounsbury, being of sound mind and disposing memory, do hereby make and publish this, my last will and testament, in order to distribute as justly as may be my interest in the world among succeeding men.

"That part of my interest which is known in law and recognized in the sheepbound volumes as my property, being inconsiderable and of no account, I make no disposal of in this, my will.

"My right to live, being but a life estate, is not at my disposal, but these things excepted all else in the world I now proceed to devise and bequeath:

"Item.—I give to good fathers and mothers, in trust for their children, all and every, the flowers of the fields and the blos-

soms of the woods, with the right to play among them freely, according to the customs of children, warning them at the same time against thistles and thorns. And I devise to children the banks of the brooks and the golden sands beneath the waters thereof, and the odors of the willows that dip therein, and the white clouds that float high over the giant trees. And I leave the children the long, long days to be merry in, in a thousand ways, and the night and the moon and the train of the milky way to wonder at, but subject nevertheless to the rights hereinafter given to lovers.

"Item.—I devise jointly all the useful ideal fields and commons where ball may be played; all pleasant waters where one may swim; all snow-clad hills where one may coast, and all streams and ponds where one may fish, or where, when grim winter comes, one may skate: to have and to hold the same for the period of their boyhood. And all the meadows with the clover blossoms and butterflies thereof, the woods and their appurtenances, the squirrels and birds and echoes and strange noises, and all distant places which may be visited, together with the adventures there found. And I give to said boys each his own place at the fireside at night, with all pictures that may be seen in the burning wood to enjoy without let or hindrance and without an encumbrance of care.

"Item.—To lovers I devise their imaginary world, with whatever they may need: as the stars of the sky, the red roses by the wall, the bloom of the hawthorn, the sweet strains of music, and aught else by which they may desire to figure to each other the lastingness and beauty of their love.

"Item.—To young men, jointly, I devise and bequeath all boisterous, inspiring sports of rivalry, and I give to them the disdain of weakness and undaunted confidence in their own strength, though they are rude. I give them the power to make lasting friendships, and of possessing companions, and to them exclusively I give all merry songs and brave choruses, to sing with lusty voices.

"Item.—And to those who are no longer children or youths, or lovers, I leave memory, and I bequeath to them the volumes of the poems of Burns and Shakespeare and of other poets, if there be others, to the end that they may live over the old days again, freely and fully, without title or diminution.

"Item.—To our loved ones with snowy crowns I bequeath the happiness of old age, the love and gratitude of their children until they fall asleep."