

## ALL RIGHT IN THE END.

Your heart is bowed with a transient grief.  
Your eyes are misty with tears;  
There's a sorrow deep and there's no relief  
Ahead in the maze of years.  
So it seems to you as you weep to-day,  
Yet sorrow may be your friend;  
So keep up your courage a while and pray,  
'Twill come out right in the end.

There never was day so dark and drear  
But that, ere the sands had run,  
The clouds would shift and the heavens  
Clear.

To the smiling face of the sun,  
There never was cruel stab or blow  
Inflicted by foe or friend  
But there was a balm, God willed it  
—

'Twill come out right in the end.

There never was love so cruelly  
Wronged  
Or throttled by vengeful lies,  
But time atoned for the joys you  
Longed,  
And love that was crushed would  
Rise.

O, heart, rise up from the slough's de-  
spend,  
Your faith must not swerve or bend;  
Let hope be pinned above and beyond—  
'Twill come out right in the end.

—Roy Farrell Greene.

## OVER THE DAM.

By Mrs. M. E. Kendall.

"Now, Lou, be good, and tell us honestly how it came about that you, once Louise Crofton, the belle of Ivy-side, became Mrs. Darwin, instead of the wife of the handsome, elegant, refined Charles Mountain, the semi-millionaire, to whom Madame Rumor and all the rest of us had you more than nineteenth-century engaged."

That is the question that I, as speaker pro tem for a party of pettecoated pests, put to Mrs. Louise Darwin, the potted wife of an honest, upright, very plain, not overeducated, independent farmer, to whom she had been eighteen months married, and whom she loved with her whole heart; while Denton Darwin worshipped her as the devout Persius does his sun-dew.

"Don't you know, we went over the dam together?" was the laconic answer I received in behalf of myself and inquisitive clients; which answer made us only the more clamorous for details, and so we besieged the somewhat reticent Louise en masse, threatening her with suffocation by hugging—all of us—right around her neck, unless she surrendered at discretion, and afforded us the information demanded.

"O, yes; most of us remember your going over the dam in company with your husband that is now. But then that was two and a half years ago, and we have never quite determined how that simple circumstance could have so entirely revolutionized Louise Crofton's matrimonial ideas."

"I am well aware how widely you all guessed of the truth in discussing the incident and its results. But as I always argued it was really the business of no one except myself and the man who is now my husband, I know of no reason why you should not be permitted to guess on to your heart's content, without my volunteering an explanation."

"Now, Lou, you're a tyrant, and a barbarian, to snub us in this manner. We only wanted to—"

"Ah, yes, girls—I understand. You only wanted to add a few more meshes to your man-catching nets. Well, you shall be gratified; not that I approve of dimity man-traps; but that one or two of you are in need of an illustrated argument, and perhaps all of you may deem it advisable to go over the dam some day before dropping your family identity at the altar forever; and so I will tell you the story."

"Ah! there's a darling. Now you are really good, Lou!" And we all got closer around Louise Darwin, flinging ourselves down on the velvet sward under the old elm out there on the lawn, in a listening attitude. Lou told us the story very prettily and briefly. I will endeavor to be as brief; though I can not hope to be as entertaining with a pen as Mrs. Darwin was in her real communication.

"Several of you girls were eye witnesses of the incident; but as some of you were not, I will relate the circumstances in brief, as they occurred."

"A party of some thirty persons, quite one-half of whom were young ladies of about my own age, had crossed in boats the larger branch of the river, to a narrow, wooded island about a mile above the Fairfield dam, for the purpose of fishing; wandering in the woods and social enjoyment generally."

"Three days previously Denton Darwin had solicited my hand in marriage, and I had rejected him—not rudely and heartlessly, for as a friend I regarded him very highly; but as I neither loved him nor any man, I had no idea of giving myself away until my heart had a word to say in regard to the transfer. This I frankly told Darwin, and though he regretted his failure, he was in no wise offended, and it was agreed that our relations of friendly intimacy should continue uninterrupted."

"Charles Mountain was my escort upon the occasion, and availing himself of an opportunity that occurred during a ramble through the wood, he declared his love for me in a manner somewhat impetuous, and besought me to accept his heart, hand and fortune."

"Mr. Mountain's attentions to myself had for several months been so particular that local gossip had declared an engagement, which assertion I never told the pains to contradict. Indeed, I was rather proud of such a possibility; for

Charles Mountain was rich, refined, of good family, unexceptionable in character, and I knew of no earthly reason why any girl, having her affections enlisted in the right direction, should not accept him on presentation. It was only that my own affections were not so enlisted that I did not accept him unconditionally. As it was, I declined the proffered alliance, but in a manner that gave him a wide margin for future pursuit, of which he assured me he should certainly avail himself."

"Mr. Darwin was of our party and although unaccompanied by any lady, he was very entertaining, attentive and serviceable to all; and before the day was half over every one of us of the feminine persuasion voted Denton Darwin an absolute necessity in all future picnics, boating or woodland excursions."

"By the merest accident, about an hour previous to the time fixed for our return home, five of us—Charles Mountain, Denton Darwin, Philip Fallonsby, Mary Watson and myself—met near where our little fleet lay moored to the river bank; and at some one's suggestion it was resolved that in one of the boats we should make an excursion around the foot of the island, and, pulling up in the eddy on the opposite shore join the remainder of our party, who had improvised an extemporé bush concert near the bank on that side."

"Entering a light skiff, the smallest of the fleet, we set out on our miniature voyage, and with Fallonsby, who was an expert waterman, at the oars, we went gliding down the swift current as gracefully and fleet as the startled swan."

"We were in mid-channel, and almost down to the foot of the island, when our oarsman, by a sudden overstrain of his left-hand oar in bringing the bow of the boat round toward the island, snapped the treacherous blade short off in the row-lock. The mishap sent Fallonsby sprawling backwards into the bottom of the boat, and in his tumble he lost overboard the remaining oar, which in a moment drifted beyond our reach, and there we were, helpless, drifting at the mercy of the current—each moment becoming more powerful—right down toward the Fairfield dam, over which the river dashed in a foaming cataract, and where escape from destruction would be a miracle."

"For the space of—it might have been thirty seconds, all remained quiet and breathless with astonishment, and terror. The silence was as profound as that of the tomb, and the frail skiff was whirled with fearful velocity toward the yelling dam. Then a boisterous exclamation of joy broke from Mountain:

"Fallonsby, there is a chance for us. Down yonder where you see that rock just above water, the depth is not more than four feet all the way across the river. By stripping off coats and vests, and holding firmly to each other, we can gain the shore by wading."

"And would you abandon these helpless girls to destruction without an effort to save them? indignantly asked Darwin."

"Self-preservation is the first law of nature," replied Mountain, dashing his coat, hat, and vest into the bottom of the skiff."

"We can only save ourselves," cried Fallonsby. And down went his coat and Panama, along with Mountain's."

"Go, then, cowardly wretches that you are!" exclaimed Darwin, contemptuously. "It is some relief to know that our last breath will not be drawn from an atmosphere tainted by the presence of such poltroons."

"The boat had reached the upper edge of the belt of shallow water, and without reply to Darwin's taunt, Mountain and Fallonsby simultaneously leaped overboard, and grasping each other fiercely, began fighting their way laboriously towards the shore. But an escape by fording was a far more difficult feat to accomplish than they had imagined; and by the time they had reached the rock alluded to by Mountain, and which lay at about one-third the distance from where they leaped from the boat to the shore, they were both so entirely exhausted that it was with considerable difficulty they managed to drag themselves out of the water upon the flat surface, affording scarcely sufficient room for two persons, and in no place a foot above the water."

"In the meantime Darwin had not effortlessly resigned himself and us to impending fate. You would think that under the circumstances there was nothing that human agency could achieve to avert our doom. It was thus that Mary and I argued at the time; but Darwin thought our lives worth a desperate effort, and he made it."

"A moment after Mountain and Fallonsby left us he was overboard also, striving like a very Hercules for our salvation. First he endeavored to sustain the boat against the current by setting his shoulder against the downstream side, and seeking to force it gradually endwise towards the rock, against the upper side of which, if he could but gain it, he quietly informed us he could securely lodge the skiff until some one of the other boats could come to our rescue. Finding himself baffled in this attempt by the force of the current, he dexterously whirled the bow of the skiff up stream, and planting his feet firmly against the projections of the rocky bottom, he sought first to force the boat diagonally across the stream towards the shore. In this he for a little time made some progress; but the strength of the current was too powerful for human endurance, and our brave champion was fast becoming exhausted. While we—poor helpless things—all we could do was sit there and pray God to spare so generous and brave a hero, even were we ourselves doomed to perish."

"Darwin glanced towards the two men cowering there on the rock, and ex-

claimed in a tone eloquent in its very bitterness:

"O, if those wretches had but remained and coupled their strength with mine, how easily we might have sustained the boat and saved you!"

"Then finding that he could no longer force the skiff another atom against the surging current, he resolutely set himself against the lower gunwale, and said very quietly:

"Louise and Mary, I will battle against our fate while my strength lasts. Perhaps relief may reach us before I am quite conquered."

"At that moment a clear ringing shout reached our ears from the water a little distance above us, and looking in the direction whence the shout came we discovered a man fighting his way toward us with superhuman efforts, in part supported by a branch of some light wood. As he drew near we recognized Charley Cheever, who, as we subsequently learned, had been rambling alone about the foot of the island, and observing the accident of the oar breaking at the moment it occurred had instantly cast aside his boots, coat and hat and plunged into the stream, hoping to overtake us before we reached the dam, and aid us as he might by his superior knowledge of water craft."

"On reaching us, Charley was quite as much exhausted as Darwin himself, and his first word was a declaration that it was sheer folly for them to attempt to sustain the boat there until they became utterly helpless, and finally be forced over the dam like an old saw log."

"Give me a hand here—both of you girls. Now—a long pull, a strong pull, and a pull all together." And by the united efforts of Mary, myself and Charley, that young gentleman was in the skiff directly, and not many seconds later he had Darwin in also, and the boat was drifting swiftly onward again towards the dam."

"Charley Cheever was a discarded sailor of Mary's, while Fallonsby, who had so basely abandoned her in the moments of extreme peril, rumor said was her accepted lover."

"Queer arrangement, wasn't it, girls? There we were, two foolish girls, drifting to destruction with our rejected suitors, while our accepted ones were perched on a rock away up there in the middle of the river, like sea-lions, only there was very little of any sort of lion about them."

"Now, then, Denton," said Charley, gaily but earnestly, "let us to work and wreck this craft a trifle more that we may have something to save her with. Wrench out that thwart on which you are sitting, while I help myself to this one. So—we are supplied with tolerable paddles—now you take the bows, and I'll go aft; keep one eye on my motions, and assist my navigation with all the might that is in you. I've been three times over that old dam, with more water rolling over than there is this evening. Help me all you can, Denton; and you girls keep quiet, and if I don't pilot you down that channel without ruffling a feather, I'll agree to swim up stream over the dam."

"I can never describe to you the fearful plunge, for every sense was merged in that of concentrated vision, and that fixed upon the stern, resolute features of the two heroes who were so generously periling their lives for our salvation."

"We passed the seething vortex unscathed, and then I think I fainted, for I have no recollection of anything further until awakened by the congratulations of our whole party save two, who had hastened across the river, and down the bank to the point where Darwin and Charley had landed us in safety."

"When the base conduct of Mountain and Fallonsby was proclaimed, it was voted unanimously that a night's reflection on the rock there by themselves might be of service to them. In the following morning, however, they were brought off; but they were never very well received in Fairfield society afterwards."

"A year later, Charley and Mary, Denton Darwin and myself, all went over the matrimonial dam together."

## Temperature of the Polar Sea.

Some of the members of the Nansen expedition at Tromsø have been relating to a Reuter's correspondent some of the scientific facts gleaned during the expedition. During the course of the cruise the crew had on several occasions exciting encounters with bears. North of 84 degrees, however, no animal life was found to exist, and this would seem to cast some discredit on the hitherto prevalent theory that if a sufficiently high latitude could be attained, one would come to dry land and open water. Because birds are to be seen flying toward the extreme north. This northerly flight of the birds is now believed to be attributed to their having lost their way or being blown out of their course. The depth of the water in the extreme north also seems to indicate that there can be no land near. Soundings taken at 84 degrees latitude gave a depth of from 1,310 to 1,520 fathoms, and further north the lead reached even greater depths, as much as 3,186 fathoms, it is said. From observations made in 1894-96, the temperature of the sea in these regions was found to present several peculiarities. At a depth of 100 fathoms the water was cold. Then came a stratum of about 382 fathoms with some degree of heat, and under this stratum about 490 fathoms of cold water. The proportion of salt in the water varied a good deal. These conditions were pretty much the same everywhere. The further north they got the less current and tide there was, while the wind began to exercise considerable influence on the course of the Fram.

## A BIG ICE MINE.

It is in Virginia, and is thought to be a Relic of the Ice Age.

One of the greatest curiosities in the United States, or in the world, perhaps, is the wonderful ledge of ice which exists, even in the midst of the hottest summer, in Scott County, Virginia. This natural ice-house is situated on the north side of Stone mountain and about six miles from the mouth of a small stream known as Stoney Creek. The marvel is said to have been known to at least one of the earlier settlers, a Mr. Dunridge, who, it is alleged, discovered it while deer hunting away back in 1830. Owing to the fact that the land on which it was situated could not be bought, Mr. Dunridge positively refused to tell of the whereabouts of the ice ledge, and only visited the place when it was absolutely necessary to obtain a supply to be used in case of sickness."

The old man died many years ago, and from that time until 1883 the location of Dunridge's ice mine was unknown, the old gentlemen having never even taken his own family into the secret."

In the last year mentioned, however, a party of herb diggers visited the unfrequented region contiguous to Stone Mountain and were fortunate enough to re-discover the lost ice mine."

During two or three months in the middle of summer the ice is only protected from the sun's rays by a thick growth of moss. The formation of the ice layer is similar to that of a coal vein, being thin in some places and thicker in others, the average being about four feet. Persons of scientific attainments who have visited the place for the purpose of studying the wonder say it has the appearance of having been there since the time of the ice age, which the geologists talk so much about. Another plausible theory is that somewhere beneath the bed is situated a great natural laboratory, where other ice is constantly formed and expelled, and that the process of freezing is now constantly going on. Whatever view is taken of it it is one of the greatest natural wonders the state affords."

## Birds of Ill Nature.

Among those birds which stay at home, especially the most domesticated, there is often an exhibition of unkindness seemingly unaccountable, says a writer in the Cornhill Magazine. The graceful swan, e. g., is one of the most ungracious in its ways. Not only (in the breeding season) does a male bird resent the intrusion of a strange gentleman, but it will spend the day in driving off from its domain any unlucky geese, which might be plainly assumed to have no designs upon its domestic arrangements, and have, indeed, no desire beyond that for a comfortable wash and swim. It will also pursue even the most innocent of new-born ducklings while they unwittingly rejoice in an early taste of their common element."

When an only child has passed out of the cygnet stage of life and grown to full physical, if not mental, maturity, father and mother swans have been known to fall upon and deliberately beat it to death with wing and beak. The gratified parents swim gracefully about the mere in which they lived, while the great white corpse of their son lay, battered and dead, upon the shore. The following year, after another had been born to them, and in infancy carried upon his mother's back, they began to treat him so roughly that, not being pinioned like them, he wisely flew away, and we saw him no more. Curiously enough, geese which have experienced rudeness from swans in the lusty spring have been known to retaliate in the calmer autumn, when the fierceness of their enemy had become mitigated. I have seen a gander leap upon the back of a once arrogant swan and pound away at it in the full enjoyment of gratified revenge."

## Daylight at the Ocean's Bottom.

Experiments made by means of photographic plates in the Mediterranean, near Corsica, show that sunlight penetrates the sea to a depth of 1,580 feet. The penetration depends on the transparency of the water, the Mediterranean being exceptionally clear. Usually the light of the sun 150 feet below the surface of the ocean is no more than that of the moon, while at a depth of 300 feet it is scarcely equal to the glimmer of twilight, and at 600 feet in many parts of the ocean there is perpetual darkness. Near Mindora, in the Indian Ocean, corals are visible under 150 feet of water. The Caribbean Sea is of crystalline clearness, objects being discernible on the bottom at a very great depth."

## Heat in the Arctic Regions.

Suffering from heat in the Arctic regions seems incredible. Lieutenant Gilder relates his experience while in King Williams Land, and declares that nowhere on earth is one more annoyed by sunburn than in the frigid zone. The heat compels him to throw back the hood of his fur coat, and by thus exposing his head not only his face becomes blistered, but if he wears his hair thin his entire scalp is affected as severely as if scalding water had been poured upon him."

## Pennies in Hiding.

There are 119,000,000 old copper pennies somewhere. Nobody knows what has become of them, except once in a while a single specimen turns up in change. A few years ago 4,500,000 bronze two-cent pieces were set afloat. Three millions of these are still outstanding. Three million three-cent nickel pieces are scattered over the United States, but it is very rarely that one is seen. Boston Budget.

## Nature in the Ocean.

It is estimated that the cyclops will beget 442,000 young in the course of a year; and if these were all permitted to mature and reproduce themselves, the seas would in a short time be a simple mass of living organisms. But the cyclops, or "whale food," constitutes almost the exclusive food of the vast shoals of herrings and the sea-living salmon and salmon trout. Their existence is one of the greatest economic triumphs of nature; for these minute creatures scour the sea of its refuse and keep it sweet, while they form the food of the fishes which in turn furnish wholesome food for millions of human beings."

Feeding on dead vegetables and animal matter, these entomostraca are converted into these food fishes of the world, by one remove, being first assimilated by the tunny, cod, mackerel and other fishes which follow herring shoals and prey upon the latter. They mainly swim on the surface of the water, and it is the search of them in this position which brings the shoals of herrings to the surface. Their countless numbers are also augmented by the microscopic larvae of fixed shells, such as the barnacle, which begins its life in this form, first as a one-eyed swimming crustacean, then growing a pair of eyes, and finally affixing itself."

In rivers these larvae are the sole food of all young fish, and often also of older fish. In early spring the creatures in every stage—eggs, larvae, a perfect, though microscopic entomostraca—swarm in the water on the mud, and on the water plants, and were it not for nature's provision for keeping them in check, so rapid would be their rate of multiplication that the whole character of the water would speedily be entirely changed.—Pittsburgh Dispatch.

## Gigantic Sequoias.

The Valley of the Yosemite, in California, is about one to one and a half miles long. The great natural scenery is in the Mariposa grove, with its gigantic sequoias. The Grizzly Giant and Wawona are the two most famous of the great trees. Wawona is the tree through whose hollow trunk stage coaches are driven. When a party was recently driven through in a stage coach with four, the heads of the four horses were at one end of the opening through the trunk, while the end of the coach was at the other, the length of the horses and the coach exactly marking the diameter of the huge tree. These trees are the Sequoia Gigantea, and are the tallest trees on the earth, except the eucalyptus giants of Australia, which are smaller in size of trunk but considerably taller. The Grizzly Giant is ninety-three and a half feet in circumference, thirty-one feet in diameter, and about two hundred and seventy feet high. One gigantic specimen in the Calaveras forest is 106 feet in circumference and 276 feet high. The monarch of the grove is fallen, and half of its mighty trunk has been consumed by fire or has decayed. It is known as the Mammoth."

## A New Fuel.

M. Paul d'Humy, a French naval officer, has originated a process for the solidification of petroleum for fuel purposes. From an account in the Progressive Age it appears that heavy common oil has been converted into a solid block, as hard as coal, burning slowly, giving off an intense heat, and showing no signs of melting—a ton of such fuel representing thirty tons of coal, and occupying a space of but three cubic feet, as against the large space required for coal. M. d'Humy recently exhibited samples of the article and experimented with them. Among the samples were several of the solidified fuel and of low grade oils, and in addition to these there were samples of the same fuel in dry powder and paste, the petroleum powder and paste mixed together and forming a hard homogeneous mass, with a great specific gravity, and when burning, giving off a flame three times its own volume and a remarkable heat. Tests to determine the production of smoke or smell failed to indicate the

## She Rides With Her Husband.

A stockman from Yakima, Washington, passed through Lewiston, Idaho, the other day, on the trail to Missouri with 200 head of horses, says the Lewiston Teller. In the company were husband and wife, and the lady will make the journey over the mountains and across the continent on horseback. They have only begun the journey, but the few days have been somewhat eventful. The horses are wild, and they stampeded on Snake river, before reaching this city, and fourteen of the number went over a 200 foot precipice and were crushed to a pulp by contact with rocks in the fall."

## The Wonderful Mimic Snake.

The Dakotas, Montana and Wyoming, are the States in which the most wonderful specimen of American reptile is found—a snake which is able to mimic the call of any of the bird family. One which some Government naturalists were recently watching imitated the call of the Bob White to perfection. While the serpent was under surveillance it coiled itself up in the long prairie grass, swelled the parts about the neck and head to about twice their usual size, and emitted several bird calls as plainly as the feathered musicians themselves could have done it."

## Antiquity of Cotton Cloth.

Herodotus mentions the making of cotton cloth in India B. C. 400. While not as elegant in texture and appearance as that from our modern mills, yet the ancients had the natural luster and better wearing quality."

## BREAKING UP A NUISANCE.

A Circus Manager Ends the Playd-Out Call for a Doctor.

"Your story about calling for a doctor in the circus," said a retired bowman, "reminds me of the way we broke up a nuisance in a good-sized Pennsylvania town. I was on the road with a farce-comedy company, and we put in two weeks at the town in question, there being a big military encampment there and a county fair to boot. We drew good houses all through the engagement, and were booked for an early return. I don't think we had been there more than one night before the doctor nuisance began. There would come a hurried messenger from the box office to the stage manager with a request that he ask if Dr. Bonus, or whatever his name happened to be, was in the house, and if he was, to send him to the office at once. Of course the stage manager couldn't very well refuse, and general attention was directed to the medical man, much to his satisfaction. We soon found out that the doctors who were so much in demand were very small medical fry, and there wasn't a doubt that they had had themselves called for in order to secure the consequent notoriety. Well, we stood it for a few nights, and then an idea occurred to me. I took a walk up the main street until I came to a certain sign hanging over the stairway. I went up to the office indicated and had a brief conversation with its inmate, ending it by handing him a reserved seat ticket."

"That evening immediately after the first act and before any messenger from the box office had a chance to arrive, I stepped out in front of the curtain and held up my hand. Then in my gravest tones I asked:

"Is Dr. Chizzold in the house?" "Immediately a very tall colored man, with a bushy white head and huge silver mounted spectacles, arose in the audience and said:

"Here I is, sah."

"The audience tittered, but I kept my gravity."

"You are wanted at the box office at once, doctor, in a case which requires your immediate professional attention." "As the aged medicus ducked to me and hobbled from the room, the audience broke into a wild roar."

"Perhaps you will understand the cause of their merriment when I add that the old man was a corn doctor, and probably the best-known eccentric character in town."

"Well, there was no more doctors called from that stage during our engagement."—Cleveland Plain-Dealer.

## Singular Death.

Earl Blackwood, the twelve-year-old adopted son of Clarence Blackwood, who occupies a farm about four miles from Blackwood, Pa., came to his death in a singular manner recently, says the Philadelphia Ledger. He was accidentally hanged while playing in his father's barn."

Mr. and Mrs. Blackwood took the boy to an entertainment in Philadelphia on Thursday night, and what he saw there appears to have made a deep impression on his mind, as he talked about it a great deal the next day, and it is thought that he came to his death while trying to repeat some of the circus feats that he had witnessed. Before he went into the barn he told his mother he would be back in a short time and help her to perform some household duties. Some time afterwards a boy living in the neighborhood went into the barn and was horrified by the sight of young Blackwood suspended at the end of a rope which was fastened to a beam overhead. He raised an alarm, and the body was cut down immediately, but all attempts at resuscitation were unavailing."

The rope from which the boy was suspended was a plough line, with a loop at each end. He had evidently fastened one end of the rope to the beam overhead, and then passing his head through the loop at the other end had strangled himself."

## Cost of Paris Exhibitions.

The exhibition of 1867, with a total area of 176,000 square yards, cost \$4,500,000; in 1878 the expenditure amounted to \$10,000,000, of which \$8,300,000 went for the exhibition property so-called, and its 296,000 square yards of covered space; \$1,700,000 was expended on the 17,300 square yards of the Trocadero Palace, and the rest was absorbed by the gardens, the aquariums, the cascades, etc. In 1889 the estimate showed a total anticipated expenditure of \$8,500,000, and, what is very interesting and curious, the actual outlay fell short of the estimate, since only \$8,000,000 were spent on the exhibition, leaving a balance available for the maintenance of the palaces on the Champ de Mars, which will now, in part, at least, have to be demolished. In 1900 it is intended to spend \$18,000,000, but of this one-fifth will be devoted to the construction of the new palaces that will remain in the Champs Elysees as permanent monuments. There is an enormous increase in the scale of the 1900 exhibition, as compared to that of 1889, since it is intended to spend twice as much money upon it as was devoted to its predecessor."

## Paper Shoe Heels.

Paper has been adapted to the manufacture of shoe heels. The pulp made in the ordinary way in digesters is mixed with alcohol, litharge, tar and fish glue, and allowed to soak a day or two. The pulp is then rolled into sheets, shelled and slaked lime being put in. As this hardens when dry, the pulp must be rolled and cut into heels before the hardening. These heels are more durable than leather, and can be furnished at a fraction of the cost of this material.—American Artisan.