To Recover Photo Silver Waste.

A. C. HOPKINS.

In common with most photographers, I have a small dark room, but because there is a sink and waste-pipe in the room, I do my toning there.

At the end of the sink I had, until recently, a large barrel into which I poured the first two or three washings from my prints, and to which I would occasionally add a handful of salt. When the barrel became full (which took a week or ten days), I put in more acid to clear it up, as directed in a circular issued by the refiners. But I found that it did not clear well, either because I used too much salt or not enough acid; and, drawing off the water before it had settled, I knew that I was wasting a great deal of silver. Then, too, a barrel of stagnant water, standing in a small room, is not conducive to health or comfort. So I decided to dispense with mine, and found a substitute in the following simple process:

After soaking my prints for five minutes in water made slightly acid by acetic acid, I remove them to another dish, and add to the water from which I have just taken them about a teaspoonful of salt, and stir it rapidly for a moment with the hand, when it becomes as white and thick as milk. This solution I then pour into a common wooden pail, which will hold enough water for the first washing of a hundred prints, and the next day, when I am ready to tone again, I find that my solution has become perfectly clear, and in the bottom of the pail I have a clear white sediment —pure chloride of silver. I then pour off the water to within an inch of the bottom, and the pail is then ready to be filled again.

I find that by adding salt to the second water in which I washed the prints, there is hardly a trace of silver, and it is not worth saving. About once a month I pour the settlings from the pail through a fine cloth to filter it, and throw the cloth and contents into the silver paper clippings. In this way I save more than half of the silver used in making the print.—*Anthony's Bulletin.*

Mineral Products of the United States, 1885.

The following condensed statement of the mineral production of the United States in the calendar year 1885 is from advance proof sheets of a report shortly to be issued by the United States Geological Survey. This volume will be the third of the series known as "Mineral Resources" reports, prepared by the Division of Mining Statistics and Technology.

Metallic Products of the United States in 1885.

	Quantity.	Value.
Pig iron, spot value.....tons	4,044,525	$64,712,400
Silver, coining value.....t. oz.	39,910,279	51,600,000
Gold, coining value..... "	1,538,376	31,801,000
Copper, value at New York city *a*.....lb.	170,962,607	18,292,999
Lead, value at New York city.....tons	129,412	10,469,431
Zinc, value at New York city..... "	40.688	3,539,856
Quicksilver, value at San Francisco...flasks	32,073	979,189
Nickel, value at Philadelphia.....lb.	277,904	191,753
Aluminum, value at Philadelphia.....t. oz.	3,400	2,550
Platinum, value, crude, New York city "	250	187
Total.....		$181,589,365

a Including copper from imported pyrites.

Non-metallic Mineral Products of the United States in 1885 *(spot values).*

	Quantity.	Value.
Bituminous coal, brown coal, lignite, anthracite, mined elsewhere than in Pennsylvania.....l. tons *a*	64,840,668	$82,347,648
Pennsylvania anthracite..... " *b*	34,228,548	76,671,948
Petroleum.....bbl.	21,842,041	19,193,694
Building stone.....		19,000,000
Lime.....bbl.	40,000,000	20,000,000
Salt..... "	7,038,653	4,825,345
Cement..... "	4,150,000	3,492,500
South Carolina phosphate rock.....l. tons	437,856	2,846,064
Limestone for iron flux.....		1,694,656
Mineral waters.....gal. sold	9,148,401	1,312,845
Natural gas.....		4,854,200
Zinc, white.....s. tons	15,000	1,050,000
Concentrated borax.....lb.	8,000,000	480,000
New Jersey marls.....s. tons	875,000	437,500
Mica.....	92,000	161,000
Pyrites.....	49,000	220,500
Gold quartz souvenirs, jewelry, etc.....		140,000
Manganese ore.....s. tons	23,258	190,281
Crude barytes..... "	15,000	75,000
Ocher..... "	3,950	43,575
Precious stones.....		69,900
Bromine.....lb.	310,000	89,900
Feldspar.....l. tons	13,600	68,000
Chrome iron ore..... "	2,700	40,000
Asbestos.....s. "	300	9,000
Slate ground as a pigment.....l. "	1,975	24,687
Sulphur.....s. "	715	17,875
Asphaltum..... "	3,000	10,500
Cobalt oxide.....lb.	68,723	65,373
Total.....		$239,431,991

a The commercial product, that is, the amount marketed, was only 63,569,284 tons, valued at $80,640,564.

b The commercial product, that is, the amount marketed, was only 32,265,421 tons, valued at $72,274,544.

Resume of the Values of the Metallic and Non-Metallic Mineral Substances produced in the United States in 1885.

Metals.....	$181,589,365
Mineral substances named in the foregoing table.....	239,431,991
	$421,021,356
Estimated value of mineral products unspecified.....	7,500,000
Grand total.....	$428,521,356

Ostriches at Los Angeles.

Within six miles of this beautiful place, on what is known as the old Temple street road, Dr. C. J. Sketchley has started an ostrich farm. He was one of the pioneers in ostrich farming in Africa, where he engaged in the business for many years, and is the author of a number of books on the ostrich and the best methods of ostrich farming. A visit to Los Angeles convinced the doctor that ostrich farming could be successfully carried on there, and he resolved to make the experiment. The result is the Sketchley ostrich farm.

On the sixty acres of land devoted to the ostriches there are thirty pairs of these beautiful birds, besides a number of young ones recently hatched.

Their food consists almost wholly of corn and alfalfa, which is a beautiful plant of the Luzerne family. Long experience has shown that this bill of fare will cause the ostrich to produce more feathers and of a better quality than any other diet. Each male is mated, and the two birds have two acres of ground. The land is fenced off into lots of one acre each. The two birds are kept in one of these lots until they have eaten off all the alfalfa, when they are transferred to the other, being thus alternated between the two. From the observatory tower in the center of the doctor's residence the ostrich grounds look like an immense chessboard, and the gigantic birds like the big pieces scattered over it.

"All the full grown ostriches you see," said the doctor, "I imported directly from Africa, landing them in this country at Galveston, and bringing with them four Madrasese men and one woman, the people of that tribe being more familiar with the ostrich than any native Africans. Thus far my experience has succeeded beyond my expectations. Not only are the ostriches quite as healthy as in Africa, but they are actually more prolific here than in their native country, both in the number of eggs they lay and the number of young ones they hatch, and also in the quantity of feathers they produce—results due, I believe, to this glorious climate, which seems greatly to increase the fertility of all animals. The feathers are fully equal in all respects to any grown in Africa.

"The height of the birds is from 8 to 12 feet. Their weight varies from 300 to 400 pounds. The male is much the larger, and is black, while the female is gray. Where, then, you will ask, do white ostrich feathers come from? They are found on both the male and female birds among the loose feathers of the wings and tail. It is the fact that they are so much rarer that makes them so much more desired, and, consequently, so much higher in price than black or gray feathers, for in some respects I consider them inferior to the other feathers.

"The female ostrich does not begin to lay eggs until it is four years old, but it produces its first crop of feathers at the end of its first year. Every seven months thereafter its plumage is ready for market, yielding about 25 of the very finest feathers, besides a large number of less valuable ones. The feathers are not plucked, but are cut off, quite close to the skin, with large shears made for the purpose. No pain whatever is inflicted in the operation. Within a few days after the feathers have been cut the stubs dry and shrivel to such an extent that they are easily removed. The longest and finest white feathers are worth at wholesale $4 apiece, and good feathers are worth $200 a pound. The first clipping of young birds will average $40 in value. Of course, it requires a good deal of capital to start a large ostrich farm, as a full grown pair of birds is worth from $700 to $800, and a single young bird six months old $200; but after it is once under way, the return from the investment is a large one.

"We very seldom permit the ostriches to do their own hatching, but most of it is performed by incubators. The old idea that ostriches seldom or never require water has long since been proved false. They drink frequently, and even bathe. We keep a water trough in each pen to enable them to do so. No one knows to what age an ostrich may attain, but I believe they are little short of immortal. In Africa I have seen a pair of birds that were known to be over 80 years of age."

I reminded the doctor of a promise he had made me to show me a foot race between ostriches. We immediately went to a broad open space between the ostrich pens and the house. One of the keepers opened the door of one of the pens, and in response to the doctor's call, two superb ostriches came running to him. After caressing the gentle creatures for a few moments he showed them a handful of figs, of which they are extremely fond. Two of his men then restrained the birds by placing nooses about their legs, until he and myself had walked away about a quarter of a mile. Then, at a signal from the doctor, the birds were released, and the race began. It was a rare sight. Ornithologists tell us that the stride of the ostrich when feeding is from 20 to 22 inches; when walking, but not feeding, 26 inches; and when terrified, from 11⅜ to 14 feet. It seemed to me that in this race for a handful of figs from their master, these gigantic birds covered the last-named distance at every stride. Like the wind they came, their great necks stretched forward and upward to their utmost length, and their wings working. They kept well abreast for nearly half the distance, and then one began to forge ahead. He increased his lead till within a short distance of us, when he turned his head, and, seeing that his competitor was considerably in the rear, he slackened his pace, and, jogging up to the doctor, received his reward in figs and caresses.

Besides Dr. Sketchley's farm there is another ostrich farm near Anaheim, a thriving town on the Southern Pacific Railroad, twenty-five miles from Los Angeles.—*N. Y. Sun.*

DECISION RELATING TO PATENTS.

U. S. Circuit Court.—Western District of Pennsylvania.

THE PENNSYLVANIA DIAMOND DRILL COMPANY *v.* SIMPSON *et al.*

Acheson, J.

The patents of Ball and Case, No. 247,872, dated October 4, 1881, and No. 248,982, dated November 1, 1881, are for inventions made by them prior to similar inventions made by Allison, and described in his patent No. 261,978, dated August 1, 1882.

Allison, in 1870, conceived of the invention described in his patent of 1882, and made rough sketches of the same, one of which is preserved; but made no model, and did not consider the invention worth putting into a permanent form, and has never since made the machine; he applied for his patent, at the instance of his assignee, after Ball and Case had applied promptly after invention and had obtained patents and had put the patented article on the market. *Held* that under these circumstances Ball and Case were prior inventors.

A mere conception not seasonably followed by some practical step counts for nothing as against a subsequent independent inventor, who, having complied with the patent laws, has obtained his patent.

One who has conceived of a new device and proceeded so far as to embody it in rough sketches, or even in finished drawings, cannot there stop and yet hold that field of invention against all comers for a period of twelve years.

It was sufficient to raise the question of priority of invention for defendants in their answer to deny that Allison was the original and first inventor, and to justify under the prior patents of Ball and Case without alleging an abandonment by Allison.

In an interference proceeding in 1873, upon a different invention of the same general character, Allison has testified to making the invention here in question; but this testimony did not constitute invention any more than did the previous sketches.

Letters patent No. 147,492, granted to G. Frisbee, February 17, 1874, for core lifters, declared valid and infringed by defendants.

Where the claim of the Frisbee patent was for the combination of an annular core lifter and a tube with an inner tapering recess, and the patent described a loose elastic cut ring within a tapering recess in a boring tube, and the defendants used a loose solid unelastic ring in a cylindrical recess in a boring tube, but this ring had four dependent springs with jaws, which engage with inclines at the lower end of the recess, and the purpose and mode of operation of the two devices were similar, the difference in the construction was not material, and the claim was infringed.

Where the suit fails upon one patent and prevails upon another, the complainant is entitled to a decree; but the costs are the subject of equitable consideration

Evil of Indorsing.

I affirm, says Judge Waldo Brown, in the *Boston Traveler*, that the system of indorsing is all wrong, and should be utterly abolished. I believe that it has been the financial ruin of more men than, perhaps, all other causes. I think that our young men especially should study the matter carefully in all its bearings, and adopt some settled policy to govern their conduct, so as to be ready to answer the man who asks them to sign his note. What responsibility does one assume when he indorses a note? Simply this: He is held for the payment of the amount in full, principal and interest, if the maker of the note, through misfortune, mismanagement, or rascality, fails to pay it. Notice, the indorser assumes all this responsibility, with no voice in the management of the business and no share in the profits of the transaction, if it prove profitable; but with a certainty of loss if, for any of the reasons stated, the principal fails to pay the note.

MR. T. V. CARPENTER, long and favorably known to many readers of this paper, died at his home, Newton, Mass., on October 17. Mr. Carpenter had taken up his residence at Newton quite recently, but had returned to New York on business a few days before his death, where he contracted a cold, which developed into pneumonia, which terminated his life. Mr. Carpenter was a conscientious Christian gentleman, very much respected by a large circle of friends and by all with whom he had business relations.