

# GLOBES IN NATURE

## Why Raindrops and the Planets and Suns Are Round.

### THE FORCES OF ATTRACTION.

As a Crowd Gathers in a Circle Around an Object of Interest, So Molecular and Gravitational Impulses in Matter Act Toward a Center.

Falling rain forms into spherical drops for the same reason that the earth has become a globe—namely, because that is the shape in which the internal forces of attraction attain a balance. In the case of a very large and massive body like the earth it is the attraction of gravitation that controls the form, but in that of a small body like a raindrop it is the molecular attraction of the infinitesimal particles. The intensity of molecular attraction, which is the force that holds the components of bodies together, is far greater than that of the attraction of gravitation, but it is exercised over a comparatively insignificant distance. In each case, however, the resultant of all the attractions between the individual particles is a force directed toward the center of mass.

But by the principle of inertia time is always required for any force or combination of forces to set matter in motion. The larger the volume of matter concerned the longer will be the time needed for the internal forces to group all the particles symmetrically around their common center of mass.

It is upon this principle that the old-fashioned shot towers are operated. Molten lead is dropped from a great elevation after passing through a sieve to facilitate its separation into small masses, and during their downward flight these masses are rounded into little spheres by the mutual attraction of their molecules, which group themselves around a common center.

With very large bodies not broken up into small portions the gravitational force plays the principal part in shaping them, because gravitation is effective at great distances and throughout vast masses, while cohesion, or molecular attraction, is extremely limited with regard to the space over which it acts.

Each molecule attracts a little group of other molecules close around it, and these in turn attract their immediate neighbors. Within the space occupied by a raindrop the molecular attraction is the master force and quickly shapes the mass into a sphere.

And just as a spoonful of water thrown from a high tower will descend in the form of one or more round drops owing to the resultant pull of all its molecules toward a common center so the entire ocean if it were flung out into open space would become a gigantic ball of water rounded into that shape by the gravitational attraction acting throughout its whole mass.

It is by no accident that all the planets are spherical. They have taken that shape as inevitably as a loose stone rolls down a steep hill. Their forms are not perfect spheres, because they have been subjected to outside disturbing forces, such as the centrifugal effects of their rotation on their axes and the deformations produced by the attraction of other planets and of the sun. Even the heads of comets are spheroidal, although they are believed to consist of swarms of small bodies like meteors.

This tendency of masses, whose component parts or particles are free to move among one another, to assume a globular outline, is curiously illustrated even by crowds or swarms of sentient beings. Thus a swarm of bees when it gathers close becomes spherical or spheroidal, since that form is best suited to inclose the greatest number of individuals.

A human crowd certainly would take a spherical form if its members were able to choose their positions as freely in up and down as in horizontal space. Being confined to one level, they arrange themselves in a circle, which is the section of a sphere—Garrett P. Serviss in New York Journal.

**Political Chances.**  
"I see when a man runs for office how he puts himself in the hands of his friends."

**"Yes, my dear."**  
"If a woman ran would she have to put herself in the hands of her woman friends?"  
"I suppose so."  
"Well, I do not imagine many women will run. Think of taking such chances!"—Louisville Courier-Journal.

**Not a Bad Error.**  
She (with newspaper)—Here's a funny mistake in the report of that affair last night. It says that Mrs. Swellman appeared in a handsome "ampere" gown, instead of "empire." He—Well, "ampere" isn't very far off; her gown was a bit shocking—Boston Transcript.

**A Pleasure.**  
"I put through a big financial deal last week," remarked Mr. Dustin Stax. "I thought you said you were going on a pleasure trip."  
"Could there be any pleasure greater than putting through a big financial deal?"—Washington Star.

**Obfing.**  
"Water, the steak is so tough I can't eat it with this knife."  
"Why good, sir—I'll bring you another knife, sir."—Columbia Jester.

**Intelligence.**  
"The intelligence talent is to create it—"

### FROM ANNUAL STATEMENT

Year Ending December 31st, 1915

#### Queen City Fire Insurance Company of South Dakota

Home Office, Sioux Falls

Capital paid up in cash \$ 200,000.00  
Ledger Assets Dec. 31, '14 270,995.76

#### INCOME

Total Premium Receipts \$ 34,955.66  
Interest and Rents 10,031.52  
From all other sources 802.27

Total Income 45,789.45

#### DISBURSEMENTS

Paid for losses 24,344.90  
Adjustment and Settlement of losses 228.77  
Commissions or brokerage 7,119.61  
Salaries, Agency and office expenses 12,000.80  
Decrease, value ledger assets 11,654.12  
All other disbursements 8,172.55

Total disbursements 63,221.71

Balance 253,233.60

#### LEDGER ASSETS

Book value of real estate 55,000.00  
Mortgage loans 121,845.20  
Bonds or stocks, and loans on collateral 29,750.00  
Cash in office and banks 12,841.85  
Other ledger assets 33,793.55

Total ledger assets 253,233.60

#### NON-LEDGER ASSETS

Interest and Rents 7,189.57

#### GROSS ASSETS

Total 260,423.17

#### DEDUCT ASSETS NOT ADMITTED

Agents' balances and all other non-admitted assets 10,159.24

Total 250,263.93

#### LIABILITIES

Unpaid losses and claims 7,121.71  
Premium reserve 35,511.75  
All other liabilities 4,239.09

Total amount of all liabilities except capital 46,872.55

Capital paid up in cash 200,000.00

Surplus over all liabilities 203,127.44

Total 403,127.44

#### BUSINESS IN SOUTH DAKOTA 1915

Risks written 3,671,765.66  
Premiums received 25,539.09  
Expenses incurred 26,831.14  
Losses paid 16,242.74

#### Company's Certificate of Authority

Whereas, The Queen City Fire Insurance Company, corporation organized under the laws of South Dakota has filed in this office a sworn statement exhibiting its condition and business for the year ending December 31, 1915, conformable to the requirements of the laws of this state regulating the business of insurance; and

Whereas, The said company has filed in this office a duly certified copy of its charter, with certificate of organization, in compliance with the requirements of the insurance law aforesaid;

Now, Therefore, I, M. Harry O'Brien, Commissioner of Insurance of the state of South Dakota, do hereby certify that the above named company is fully empowered, through its authorized agents, to transact its authorized business of Fire, Tornado, Marine, Inland and Automobile Insurance in this state, according to the laws thereof, until the last day of February, A. D. 1917.

In testimony whereof, I have hereunto set my hand and official seal at Pierre, this first day of March, A. D. 1916.

M. HARRY O'BRIEN, Commissioner of Insurance.

(Seal) By P. C. MUELLER, Chief Clerk.

### FROM ANNUAL STATEMENT

Year Ending December 31st, 1915

#### Queen Insurance Company of America of New York

Home Office New York, N. Y.

Capital paid up in cash \$ 1,000,000.00  
Ledger Assets Dec. 31, '14 10,672,407.50

#### INCOME

Total Premium Receipts \$ 5,305,243.57  
Interest and Rents 299,005.74  
From all other sources 697.79

Total Income 5,705,947.08

#### DISBURSEMENTS

Paid for losses 2,652,983.25  
Adjustment and Settlement of losses 86,328.62  
Paid to stockholders 500,000.00  
Commissions or brokerage 963,762.82  
Salaries, Agency and office expenses 798,411.70  
Decrease, value ledger assets 22,556.00  
All other disbursements 234,674.79

Total disbursements 5,108,717.09

Balance 11,268,997.79

#### LEDGER ASSETS

Mortgage loans 63,000.00  
Bonds or stocks, and loans on collateral 2,849,234.61  
Cash in office and banks 475,236.60  
Other ledger assets 881,327.18

Total ledger assets 4,269,800.39

#### NON-LEDGER ASSETS

Interest and Rents 100,073.44

#### GROSS ASSETS

Total 4,369,873.83

#### DEDUCT ASSETS NOT ADMITTED

Agents' balances and all other non-admitted assets 24,246.79

Total 4,345,627.04

Total admitted assets 10,873,299.82

#### LIABILITIES

Unpaid losses and claims 493,701.59  
Premium reserve 4,674,971.28  
All other liabilities 169,977.70

Total amount of all liabilities except capital 5,338,650.57

Capital paid up in cash 1,000,000.00

Surplus over all liabilities 4,334,649.25

Total 9,669,298.75

#### BUSINESS IN SOUTH DAKOTA 1915

Risks written 1,461,735.00  
Premiums received 20,925.90  
Expenses incurred 7,475.53  
Losses paid 10,157.97

#### Company's Certificate of Authority

Whereas, The Queen Insurance Company of America, corporation organized under the laws of New York has filed in this office a sworn statement exhibiting its condition and business for the year ending December 31, 1915, conformable to the requirements of the laws of this state regulating the business of insurance; and

Whereas, The said company has filed in this office a duly certified copy of its charter, with certificate of organization, in compliance with the requirements of the insurance law aforesaid;

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### FROM ANNUAL STATEMENT

Year Ending December 31st, 1915.

#### Phoenix Insurance Company of Connecticut

Home Office, Hartford.

Capital paid up in cash \$ 3,000,000.00  
Ledger Assets Dec. 31, '14 12,598,594.74

#### INCOME

Total Premium Receipts \$ 5,439,645.62  
Interest and Rents 117,625.01  
From all other sources 3,463.86

Total Income 5,560,734.49

#### DISBURSEMENTS

Paid for losses 2,659,603.29  
Adjustment and settlement of losses 59,387.97  
Paid to stockholders 600,000.00  
Commissions or brokerage 1,025,058.25  
Salaries, Agency and office expenses 988,894.23  
Decrease, value ledger assets 38,665.20  
All other disbursements 371,977.89

Total disbursements 5,546,986.33

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#### LEDGER ASSETS

Book value of real estate 216,728.15  
Mortgage loans 147,780.00  
Bonds or stocks, and loans on collateral 11,001,298.48  
Cash in office and banks 1,159,787.51  
Other ledger assets 1,003,806.60

Total ledger assets 13,589,355.15

#### NON-LEDGER ASSETS

Interest and Rents 121,291.29

#### GROSS ASSETS

Total 13,710,646.44

#### DEDUCT ASSETS NOT ADMITTED

Agents' balances and all other non-admitted assets 40,000.00

Total 13,670,646.44

Total admitted assets 13,670,646.44

#### LIABILITIES

Unpaid losses and claims 410,921.67  
Premium reserve 5,828,337.23  
All other liabilities 250,000.00

Total amount of all liabilities except capital 6,489,258.90

Capital paid up in cash 3,000,000.00

Surplus over all liabilities 6,951,387.54

Total 13,431,355.16

#### BUSINESS IN SOUTH DAKOTA 1915

Risks written 1,594,495.00  
Premiums received 20,678.71  
Expenses incurred 7,827.16  
Losses paid 8,872.33

#### Company's Certificate of Authority

Whereas, The Phoenix Insurance Company, corporation organized under the laws of Connecticut has filed in this office a sworn statement exhibiting its condition and business for the year ending December 31, 1915, conformable to the requirements of the laws of this state regulating the business of insurance; and

Whereas, The said company has filed in this office a duly certified copy of its charter, with certificate of organization, in compliance with the requirements of the insurance law aforesaid;

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M. HARRY O'BRIEN, Commissioner of Insurance.

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### Notice to Redeem from Tax Sale

State of South Dakota, ss. County of Hughes, ss. Notice is hereby given that the premises hereinafter described are tax sale property of said County of Hughes, and that the same were sold to the purchaser named herein at a public sale held on the 13th day of November, 1915, for the purpose of satisfying the tax sale of said County of Hughes, and that the same are now in the possession of the purchaser named herein, to-wit: The NE 1/4 of Section 25, Township 11 North Range 74 West of the 14th P. M. was sold to Richard Trust Company for the taxes of the year 1910 and County Treasurer's certificate of tax sale No. 13, for the same was issued by the County Treasurer of said County to said Richard Trust Company, that hereafter and on the 9th day of February, A. D. 1916, the said Treasurer's certificate of tax sale for a valuable consideration was duly assigned to U. D. Koch by the said Richard Trust Company, that U. D. Koch is now the lawful owner and holder thereof, and that the right of redemption will expire and a deed for said land will be made upon the expiration of sixty days from the completion of this notice, to-wit: the 15th day of April, A. D. 1916.

Dated this 15th day of June, A. D. 1916.

By LEW W. SANDYS, U. D. KOCH, Holder of said County Treasurer's Certificate of Tax Sale.

Pierre, S. D., June 13, 1916. His Attorney, Maryville, Mo. Treasurer's Certificate of Tax Sale.

### Notice of Publication

Department of the Interior, U. S. Land Office at Pierre, S. D. June 13, 1916.

Notice is hereby given that Leah B. Foulon, formerly Leah B. Foulon of Lacy, S. D., who on July 25, 1912, made H. E. No. 0897, for the NE 1/4 of Section 24, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 25, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 26, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 27, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 28, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 29, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 30, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 31, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 32, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 33, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 34, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 35, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 36, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 37, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 38, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 39, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 40, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 41, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 42, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 43, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 44, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 45, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 46, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 47, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 48, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 49, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 50, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 51, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 52, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 53, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/4 of Section 54, Township 11 North, Range 74 West of the 14th P. M., and the NE 1/