

visited. Not only did the villagers entertain them, but they also assisted them in their search for flowers and plants. Many of them showed great knowledge of plants and their use as food or medicine. Mr. Balls and Mr. Gourlay were particularly impressed by the honesty they met among the peasants and shepherds.

### RUSSIAN ASCENT TO THE STRATOSPHERE

ACCORDING to an Associated Press dispatch from Moscow, government wireless stations announced on September 30 that the balloon *Stratostat* had landed safely in a meadow near Kolomna, 71 miles from Moscow, after having completed a flight which carried it 19,000 meters, or 11.80 miles above the earth for a new altitude record.

The three Russian balloonists who took off in the army balloon at 8:41 A. M. on September 30 were greeted by cheering peasants as they landed.

All issued a statement in which they said they were proud to have beaten the world's altitude record of 16,700 meters, or 10.38 miles, set by Professor Auguste Piccard in August, 1932.

Another wireless from the descending craft placed its altitude at  $8\frac{1}{2}$  kilometers, about 5.3 miles, and added that the airmen expected to land in the vicinity of Bronitzky, 56 kilometers, or about 31 miles, south-east of Moscow.

The balloonists, Georgi Prokofiev, Ernest Birnbaum and Konstantin Gudenoff, had made eight previous attempts to get their craft off the ground, but this time, thanks to perfect weather, they had easy sailing.

Five messages sent while they were soaring aloft told of their rapid progress upward. About two hours, 19 minutes after they took off they wirelessly

they had bettered the Swiss natural scientist's altitude and were still rising.

They had then drifted only 24 kilometers from the straight line upward and said the equilibrium of their craft was good. They did not complain of the cold, although at that great height the temperature inside their gondola was 22 degrees below zero, centigrade, and the outside temperature was 65 degrees centigrade below.

The craft, the "U. S. S. R.," got away smoothly. Only a few persons were at the field, but thousands saw the silver-blue bag disappear shortly after nine o'clock. The crew wore heavy fur-lined, three-quarter length coats, felt boots of knee-length and regulation aviator's helmets.

The balloon is of rubberized percale and has a gas capacity of 25,000 cubic meters. The gondola, of aluminum, is ball-shaped, with nine windows. Besides radio equipment it has liquid oxygen for three men for 40 hours, and numerous natural scientific instruments which function automatically.

### LIMITATION OF CASH WITHDRAWALS FOR THE DEPARTMENT OF AGRICULTURE FOR 1934

CASH withdrawals from the Treasury by the Department of Agriculture during the fiscal year 1934, as announced on June 19, will be limited to \$60,000,000 or 37 per cent. less than for 1932. This amount is for the regular work of the department and for federal aid to the states for experiment stations, extension and forestry, but does not include funds for roads or for expenditures under the Agricultural adjustment act.

The following table shows the funds allotted to the various bureaus and for other purposes:

	Appropriation 1932	Appropriation 1933	Appropriation 1934	Limitation on cash with- drawals 1934
<b>A. Ordinary Activities:</b>				
Office of the Secretary .....	\$ 1,322,115	\$ 1,206,547	\$ 1,164,561	\$ 1,029,442
Office of Information .....	1,420,961	1,335,800	1,226,287	916,966
Library .....	110,620	106,100	100,223	88,901
Office of Experiment Stations .....	399,410	294,294	226,961	198,670
Extension Service .....	1,793,560	1,688,170	1,583,822	1,189,267
Weather Bureau .....	4,497,720	4,164,038	3,731,235	2,909,884
Bureau of Animal Industry .....	16,085,195	15,324,947	14,398,524	11,778,135
Bureau of Dairy Industry .....	796,990	717,448	655,130	545,000
Bureau of Plant Industry .....	5,839,238	4,930,874	4,496,155	3,723,195
Forest Service .....	15,184,620	10,780,924	9,952,610	7,645,559
Bureau of Chemistry and Soils .....	2,104,051	1,925,080	1,766,458	1,470,305
Bureau of Entomology .....	2,863,740	2,471,700	2,213,968	1,729,241
Bureau of Biological Survey .....	2,229,170	1,756,177	1,356,280	1,017,261
Bureau of Agricultural Engineering .....	656,990	618,690	508,206	423,971
Bureau of Agricultural Economics ...	7,241,136	6,649,841	6,095,260	4,497,150
Bureau of Home Economics .....	246,700	233,365	212,749	169,338

Bureau of Plant Quarantine .....	3,747,930	2,490,125	2,158,514	1,797,694
Grain Futures Administration .....	221,480	218,838	200,000	166,639
Food and Drug Administration .....	1,810,228	1,716,167	1,589,505	1,493,000
Total, Ordinary Activities .....	\$68,571,854	\$58,629,125	\$53,636,448	\$42,794,618
B. Payments to States, Etc.:				
Experiment stations .....	\$ 4,357,000	\$ 4,374,000	\$ 4,381,000	\$ 3,285,750
Extension work .....	8,672,936	8,728,096	8,738,096	6,553,572
Cooperative forest fire prevention .....	1,775,000	1,611,580	1,587,513	1,190,635
Distribution of forest planting stock .....	95,000	79,960	74,730	56,047
From National forest receipts, contributed, and other special funds .....	4,015,500	3,555,475	3,087,020	2,469,616
Total, Groups A and B .....	\$87,487,290	76,978,236	71,504,807	56,350,238
C. Special Items:				
Forest fire deficiency .....	4,260,000	3,087,020	2,000,000 (a)	2,000,000 (a)
D. C. rent .....			25,000 (b)	25,000 (b)
Estimated special non-recurring cash carry-over .....	1,814,300 (c)	1,814,300 (c)	1,814,300 (c)	1,814,300 (c)
Comparable Grand Totals .....	\$93,561,590	\$81,879,556	\$75,344,107	\$60,189,538

(a) Rough estimate for forest fire deficiency, based on five-year average.

(b) Rough estimate of supplemental appropriation based on special provision in Agricultural Appropriation Act, 1934.

(c) Rough estimate, based on survey of probable carry-over for payment in 1934 of non-recurring obligations of prior years; including acquisition of land and other special items; this figure included in appropriation columns to provide for comparability of grand totals.

#### THE NORTHWEST RESEARCH FOUNDATION AND THE UNIVERSITY OF MINNESOTA

THE way to a series of scientific researches that may open important and valuable industrial opportunities in the Northwest was opened at a meeting of the Board of Regents of the University of Minnesota, when that body approved the contract between itself and the Northwest Research Foundation. The foundation, whose membership is made up of leading business men of the Twin Cities and the Northwest, will raise a fund with which to investigate the commercial possibilities of regional raw materials not now being utilized to the full.

A campaign to raise funds for the foundation is expected to be launched shortly. It will be announced by the officials of that organization. James Ford Bell, chairman of General Mills, Inc., is its head.

More than a year ago the University of Minnesota pointed out that such raw materials as lignite, the aspen or "popple" forests of northern Minnesota, the peat deposits of this state, and the millions of bushels of grain of inferior grade that are a part of every crop, should be examined with detailed care to determine what commercially useful products could be made from them. There are other materials, also, worthy of consideration, among them casein, of which millions of pounds are available in Minnesota creameries and cheese factories.

The plan of the foundation is that it shall raise money to be turned over to the University of Minnesota for use in research. If a discovery is made and

patented, it may be turned over to a manufacturing concern under a licensing system. From the proceeds or royalties from this license, the first money will be used to reimburse the donated fund for the cost of the research. In the second place, the donors will be reimbursed. Money over and above the amount needed for these purposes will be divided into two equal parts, half of which will go to the university outright, while the second half will go to the foundation as a fund with which to finance further scientific researches. Thus if a license should produce \$100,000 after \$10,000 had been spent on the original research, the foundation would get back its \$10,000, the donors would be reimbursed in like amount for their donations, but without interest, and of the remaining \$80,000 there would be \$40,000 outright for the university and \$40,000 to finance further researches for the foundation.

Professor Lloyd H. Reyerson has been the prime mover in the project from the university's side. He has had, during the past year, cooperation of a faculty committee, appointed by President Coffman, and from the group of business men who plan to finance the plan.

The resolution of the Board of Regents, entering into the agreement, reads as follows:

WHEREAS, A group of public-spirited citizens have associated themselves and organized the Northwest Research Foundation as a non-profit institution established to promote researches designed to improve the economic life of the Northwest, and