France. The pupils were mostly young ladies of the leisure classes, and numbered in my day (1873) about ninety or a hundred, the lyceum having opened in 1869

with seventy or less.

The originator of the idea of the lyceum, and its first directress, was Miss Archer. She broke loose from England, and came, as many of us have come, to Germany as the land of learning, only to find that if learning was here, it was not for girls. The instruction she found in the Lüneburger Seminary was no better than she had had at home. But she went through it, and passed a governess's examination, as is required by law, to enable her to teach. She then came to Berlin. Her means were very limited. To support herself she gave lessons in English; in the evenings, in pursuance of her object, she studied Latin, Greek, mathematics, physics — all, in short, that had been left out of the instruction in schools. If Miss Archer's experience had not been of a kind to make her respond passionately to the desire for higher education, the idea that formed itself in her mind of establishing a college must have collapsed in view of its extreme difficulty. And, in truth, it is to be added to the lists of wonders that this obscure little governess, unbefriended in a great foreign city, should have accomplished such a task. She succeeded in having herself introduced from one patroness to another, upward in the social scale, till she got acquainted at last with the governess of the royal children, and later, through the countess, with the Crown Princess Victoria. Miss Archer's plans were matured, and she laid them before her Highness. In spite of the difference in their ranks, the two countrywomen understood each other. Going to lectures was a popular fashion, and, as no great scheme was practicable, it was determined to begin by adopting the current usage, only seeing that the courses of lectures were exhaustive and systematically adapted to the stage of the pupils' mental development.

When Miss Archer died, in 1882, the lyceum had attained a form somewhat different from its early compass, and essentially that which it now presents. The courses of lectures are retained, and included, during the winter semester of 1888-89, history of painting among the peoples of the Occident, Grecian plastic art, ancient art, furniture of houses in ancient and modern times - the last three courses being held in the royal museums face to face with the objects of art described. A second group of lectures included, besides the early themes of history and literature, a course in logic. And, finally, a third group grapples with the natural sciences - physics, geology, botany, and geography. The prospectus gives the whole number of lectures read as nearly twelve hundred and fifty for the year 1888-89, and the number of listeners to them as over nine hundred. The price per lecture is thirty cents.

To the lectures are added regular and exhaustive courses of instruction, and it was in these courses that Miss Archer introduced the study of the Latin tongue. They include —besides the modern languages, history, literature, and art — botany, physics, and ethnography. It is worthy of note, perhaps, that the teacher of the latter science as well as that of art history is a woman.

Pupils of the courses of instruction bind themselves

to regular attendance for three years, and to fulfil whatever exercises may be set.

In 1885 their number reached two hundred, many of whom were common-school teachers and govern-

A union, as it is, of school and university, the lyceum in Berlin embodies the highest advance which reform of female education has made in Germany.

Countess v. Krockow.

## Gettysburg and Waterloo.

As the battles of Waterloo and Gettysburg, from their size, bloodiness, and decisive importance, have so often provoked comparison, it may be of interest to readers to compare the force and loss of the combatants in each. I take the figures for Waterloo from the official reports as given by Dorsey Gardner in his "Quatre Bras, Ligny, and Waterloo"; and the figures for Gettysburg from "Battles and Leaders of the Civil War," and from Captain William F. Fox's "Regimental Losses in the American Civil War."

Unlike Waterloo, Gettysburg was almost purely a fight of infantry and artillery; the cavalry, which did good work during the campaign, played no part in the battle itself, the bulk of the horse of the two contending armies being at the time engaged in a subsidiary but entirely distinct fight of their own. The troops thus engaged should not be included in the actual fighting forces employed at Gettysburg itself, any more than Grouchy's French and the Prussians against whom they were pitted at Wavre can be included in the armies actually engaged at Waterloo. The exclusion will be made in both cases, and the comparison thereby rendered more easy.

Even making these exclusions it is impossible wholly to reconcile the various authorities; but the following figures must be nearly accurate. At Gettysburg there were present in action 80,000 to 85,000 Union troops, and of the Confederates some 65,000. At Waterloo there were 120,000 soldiers of the Allies under Wellington and Blücher, and 72,000 French under Napoleon; or, there were about 150,000 combatants at Gettysburg and about 190,000 at Waterloo. In each case the weaker army made the attack and was defeated. Lee did not have to face such heavy odds as Napoleon; but, whereas Napoleon's defeat was a rout in which he lost all his guns and saw his soldiers become a disorganized rabble, Lee drew off his army in good order, his cannon uncaptured, and the morale of his formidable soldiers unshaken. The defeated Confederates lost in killed and wounded 15,530, and in captured 7467, some of whom were likewise wounded, or 23,000 in all; the defeated French lost from 25,000 to 30,000 - probably nearer the latter number. The Confederates thus lost in killed and wounded at least 25 per cent. of their force, and yet they preserved their artillery and their organization; while the French suffered an even heavier proportional loss and were turned into a fleeing mob.

Comparing the victors, we find that the forces of the Allies at Waterloo consisted of several different kinds of troops, and together with the losses can best be presented in tabulated form. Wellington had under him 68,000 English, Germans, and Dutch-Belgians, while Blücher had 52,000 Prussians.

	Killed and	Per cent. o, killed and wounded to force
Number	. wounded. Mis	sing. engaged.
Wellington's British 23,991	6,344	59226+
" Germans . 25,886	4,006	7815+
" Dutch-Bel-		
gians17,784	1,0003,	000
Blücher's Prussians51,944	5,6121,	386
commended in Contract Con-	110000000000000000000000000000000000000	
110,005	16,062 5.	456 15

The figures for the Dutch-Belgians, who behaved very badly, are mere estimates; probably the missing numbered more than 3000, and it is very unlikely that the total killed and wounded went as high as 1000.

At Gettysburg the Northerners lost 17,555 killed and wounded and 5,435 missing; in other words, they suffered an actually greater loss than the much larger army of Wellington and Blücher; relatively, it was half as great again, being something like twenty-two per cent. in killed and wounded alone. This gives some idea of the comparative obstinacy of the fighting.

But in each case the brunt of the battle fell unequally on different organizations. At Waterloo the English did the heaviest fighting and suffered the heaviest loss; and though at Gettysburg no troops behaved badly, as did the Dutch-Belgians, yet one or two of the regiments composed of foreigners certainly failed to distinguish themselves. Meade had seven infantry corps, one of which was largely held in reserve. The six that did the actual fighting may be grouped in pairs. The Second and Third numbered nominally 23,610 (probably there were in reality several hundred less than this), and lost in killed and wounded 7586, or thirty-two per cent., and 974 missing; so that these two corps, whose aggregate force was smaller than that of Wellington's British regiments at Waterloo, nevertheless suffered a considerably heavier loss, and therefore must have done bloodier, and in all probability more obstinate, fighting. The First and Eleventh Corps, who were very roughly handled the first day, make a much worse showing in the "missing" column, but their death rolls are evidences of how bravely they fought. They had in all 18,600 men, of whom 6092, or thirty-two per cent., were killed and wounded, and 3733 missing. The Fifth and Twelfth Corps, of in the aggregate 20,147 men, lost 2990, or fifteen per cent., killed and wounded, and 278 missing.

Thus of the six Union corps which did the fighting at Gettysburg four suffered a relatively much heavier loss in killed and wounded than Wellington's British at Waterloo, and the other two a relatively much heavier loss than Blücher's Prussians.

In making any comparison between the two battles, it must of course be remembered that one occupied but a single day and the other very nearly three; and it is hard to compare the severity of the strain of a long and very bloody, with that caused by a short, and only less bloody, battle.

Gettysburg consisted of a series of more or less completely isolated conflicts; but owing to the loose way in which the armies marched into action many of the troops that did the heaviest fighting were engaged

for but a portion of the time. The Second and Third Corps were probably not heavily engaged for a very much longer period than the British regiments at Waterloo.

Both were soldiers' rather than generals' battles. Both were waged with extraordinary courage and obstinacy and at a fearful cost of life. Waterloo was settled by a single desperate and exhausting struggle; Gettysburg took longer, was less decisive, and was relatively much more bloody. According to Wellington the chief feature of Waterloo was the "hard pounding"; and at Gettysburg the pounding—or, as Grant called it, the "hammering"—was even harder.

Theodore Roosevelt.

## Ernest L. Major.

SOMETIME in 1884 those art students of New York whose lack of resources forbade any hope of their ever completing their studies in Paris, read with much interest that a fund had been placed in the hands of trustees, the increase of which was to be devoted to the maintenance in Paris for three years of a student from the art schools of New York. Later this interest was somewhat abated when it was learned that some years must elapse before the increment of this fund would yield an amount large enough for the purpose. The same year one of the large publishing firms of New York announced that an art competition for which it had offered a prize had failed to bring out any work which its judges deemed worthy, and that it would add the amount of this prize to the fund, and so make it possible to send a student abroad that year. The judges and trustees of this combined Hallgarten and Harper prize were to be three well-known artists -Augustus St. Gaudens, T. W. Dewing, and William M. Chase.

The successful competitor was Ernest L. Major, a pupil of the Art Students' League - whose picture, "Springtime," exhibited at the National Academy of Design in the fall exhibition of 1890, is printed on page 229 of this number of THE CENTURY. Mr. Major was born in Washington in 1864. He began the study of art under E. C. Messer at the Corcoran Art Gallery. In 1882 he entered the Art Students' League of New York, and was a pupil of William M. Chase until his good fortune sent him to Paris in 1884. There he came under the criticism of Boulanger and Jules Lefebvre at the Académie Julien. His first envoi to the salon was in 1885, a landscape. His second, in 1888, was an important figure-subject, "Ste. Geneviève," since exhibited in America in the cities of Chicago, New York, and Boston.

It is yet too soon to predict Mr. Major's future,— he is still three years on the youthful side of thirty,— he is a good draftsman, his composition and technique are above the average, and his color is pleasant and harmonious. He is possessed of a good deal of artistic individuality, evidenced by the fact that the pictures he has painted since his return to America show little of the styles or mannerisms of his masters.