

ALPINE NOTES.

ALPINE HONOURS.—On December 18, 1898, the Rev. W. A. B. Coolidge was elected an honorary member of the Italian Alpine Club.

ALPINE CLUB OBITUARY.—The following members of the Club died during 1898. The figures in brackets give the date of election to the Club:—Lieut.-Colonel Barrow (1861), F. Aston-Binns (1898), F. W. Gibbs (1866), C. B. Grant (1897), J. Hopkinson (1889), F. C. Hartley (1876), J. Heelis (1877), E. S. Kennedy (original member), C. Oakley (1864), Captain Utterson-Kelso (1872).

CORRIGENDA in 'Alpine Journal,' No. 142, November 1898:—

Grand Golliaz, pp. 244-5.—It should have been clearly stated in the note on this peak that Mr. Topham's party was the first to make the ascent *from the Swiss side*, and was also the first to climb the E. ridge.

Denti di Vessona, p. 246.—The central and N. Denti were ascended on July 19, 1896, by SS. Canzio, Vigna, and Toesca. ('*Rivista Mensile C.A.I.*,' July 1896, pp. 288-9.)

Bec d'Éprouv.—No part of this traverse appears to be new. See the general account of the peak in the new edition of Studer's 'Ueber Eis u. Schnee,' vol. ii. pp. 526-7, and also 'Jahrbuch des S.A.C.,' xxviii. pp. 306-7, and xxxii. p. 104 *sqq.*, as well as 'Alpine Journal,' vol. xvii. p. 355.

Mt. Faudery, p. 245, line 10 from bottom of page, the word 'By' has been omitted. The sentence should read 'also easy to reach By by turning N.E.'

THE NEW EDITION OF BALL'S 'ALPINE GUIDE.'—Any subscriber to the republication fund, or purchaser, of Ball's 'Alpine Guide' who may wish to have the fly-leaf containing the corrigenda and addenda to Vol. I., which has just been prepared by the Editor, may obtain it by applying to the Assistant-Secretary at the Club rooms, and enclosing three penny stamps.

'ALPINE JOURNAL.'—Wanted to purchase, vols. i.-xiv.; for sale, a complete set; also wanted by members, Nos. 21, 32, 33, 64, 66, 67, 70, 73, 74, 77, 78, 101. Will members having or requiring any of the above or other parts kindly communicate with the Assistant-Secretary, 23 Savile Row, W.?

MOUNTAIN HUTS.—The Editor would be glad to receive any information founded on personal knowledge which would be likely to be of interest to climbers as to the state and equipment of the less-frequented mountain huts. Trustworthy evidence, for example, as to the state of the Cabane on the A. du Midi would be very acceptable.

MR. LANDOR AND HIS CRITICS.—In consequence of our review of 'In the Forbidden Land' having been reprinted in the 'Daily News,' Mr. Landor addressed the following note to that journal:

'I am much vexed to find that the Alpine Club, through the

medium of their Journal and your paper (December 16), has, without my knowledge or consent, used my name to advertise their nailed boots, staves, ropes, and other articles suggested in "Hints to Travellers," and which are used no doubt by members of the Alpine Club and by giddy and inexperienced mountaineers. I have never required any of these articles. As the misleading advertisement is issued in the shape of a review of my book "In the Forbidden Land," I wish to add that the advertiser would have done well to read the book before he had set himself to comment upon its incidents.'

A controversy ensued between the author and Mr. Douglas Freshfield in the London and provincial press, which has led to important results—the refusal or failure of Mr. Landor to furnish in reply any further proof of his assertions and observations, beyond the exhibition of his 'very boots' in Bond Street, and the authorisation by the President of the Royal Geographical Society, Sir Clements Markham, of a statement, which we copy from Mr. D. Freshfield's final letter to the press :

'In reply to Mr. Landor's statements, and in pursuance of a suggestion he has made, Sir Clements Markham has authorised me to make public the reason of Mr. Landor not having been invited to read a paper before the Royal Geographical Society. Mr. Landor recently submitted a paper and his map materials, consisting of field books and records of observations, to the Council, by which, after careful examination, they were rejected as insufficient and unintelligible. The grounds of this decision may be gathered from Sir Thomas Holdich's review ; * and I am informed that a more detailed memorandum will be prepared for the information of the Fellows of the Society.'

We must express our regret that the Managers of the Royal Institution—a body with which Tyndall was so long associated—should have allowed themselves to be used and quoted as the guarantors of the scientific qualifications of a traveller who had no better claims to their support than those Mr. Landor has been able to produce.

MR. LANDOR'S CLAIM TO HAVE ASCENDED TO A HEIGHT OF 22,000 FEET.—Any practical contribution that may help to throw light on the question of the greatest altitude attainable on foot is one to be warmly welcomed. In Mr. Landor's book, 'In the Forbidden Land,' the author states that he attained a height of 22,000 ft. under very adverse conditions. Now, if there is no mistake in Mr. Landor's calculations, his climb is one that furnishes exceedingly strong evidence in support of those who hold the view that the greatest elevation on the earth's crust—say 30,000 ft.—can be reached on foot. As one of those who believe in this possibility, I should be only too glad to accept Mr. Landor's ascent as strong proof in support of my view were I able to consider the evidence which he furnishes of having made the ascent to that height as in

* See *Geographical Journal* for December last.

the least degree satisfactory. Regarded merely as an athletic feat it is probably without any parallel at all. After a march of 10 hrs., during which time he had taken no food, Mr. Landor found himself at a height estimated at 16,150 ft. Starting, still fasting, at 4.30 P.M., he reached at 11 P.M. a height, according to his published statement, of 22,000 ft.—*i.e.*, he rose through a height of 5,850 ft. in 6½ hrs. This shows a speed of about 900 ft. vertical height per hour, supposing that no halts were made. Actually the ascent must have been made at a quicker rate. Some delay, at any rate, must have arisen when Mr. Landor's companions gave in. Over the most favourable ground, and without being encumbered by any burden, no other traveller has ever even nearly equalled this rate of ascent at such a height. The ground traversed, however, was very far from favourable, and is best described in Mr. Landor's own words. He writes: 'To gaze upon the incline before us was alone sufficient to deter one from attempting to climb it, had one a choice. In addition to this, the snow we struggled over was so soft and deep that we sank into it up to our waists. Occasionally the snow alternated with patches of loose *débris* and rotten rock, on which we were no better off; in fact, the fatigue of progressing over them was simply overpowering. Having climbed up half a dozen steps among the loose, cutting stones, we felt ourselves sliding back to almost our original point of departure, followed by a small avalanche of shifting material that only stopped when it got to the foot of the mountain' (p. 164). Mr. Landor, moreover, carried a weight of 60 lb. To furnish material for comparison, I may note that the Chamonix regulations prescribe that the load of a porter ascending Mont Blanc must not exceed, above the Grand Plateau, 10 kilos., or about 22½ lb. In support of the statement that the ascent, as described, is probably unique as an athletic feat, I may recall the experiences of others who have recently ascended to great heights.

On Tupungato, Mr. Vines and the guide Zurbriggen started from a camp 17,000 ft. high at 7 A.M., and reached the top (21,000 ft.) at 4 P.M. The walking was fairly easy, and the travellers made 4,000 ft. in 9 hrs., giving a speed of a little under 450 ft. per hour.* Mr. Landor was able to go at twice this rate.

The Duke of Abruzzi and his party, starting from a camp on Mont St. Elias at a height of 12,287 ft., reached the top (18,092 ft.) in 10½ hrs., having made 5,800 ft. in that time. The snow was in good order, and the ascent is described as easy. This gives a rate of about 560 ft. per hour. The descent of the 5,800 ft. occupied about 3 hrs.†

Mr. Landor, at a far greater elevation, in snow up to his waist, alternating with sharp loose screes, on which he was no better off, and carrying 60 lb., was able to ascend about the same height in four hours less time. This is remarkable.

Sir Martin Conway, on 'Pioneer Peak,' in the Karakorams, left his camp at the height of 20,000 ft. at 6 A.M., and reached the top,

* *Alpine Journal*, vol. xviii. p. 396.

† *Ibid.* vol. xix. p. 125.

about 22,600 ft., at 2.45 P.M. The snow was hard, and there was a considerable amount of step-cutting. He thus made 2,600 ft. in 8 hrs. 45 min., including halts. Sir Martin Conway's party therefore ascended at a rate of about 300 ft. per hour.*

Mr. Landor was able to go three times as fast as this party, at much the same height.

In Mr. Whymper's second ascent of Chimborazo, he left his fifth camp at a height of 15,811 ft. at 5.15 A.M. The first 3,000 ft., over snow in fairly good order, occupied 3 hrs. and 20 min., and he took 4½ hrs. to accomplish the remaining 1,664 ft. The rate of ascent, therefore, excluding halts, was about 630 ft. per hour. The descent was performed at a rate of nearly 2,000 ft. per hour.† Mr. Landor, therefore, was able, at a greater height, to go half as fast again as Mr. Whymper and the Carrels.

Mr. Whymper, on his first ascent of Chimborazo, left his third camp, 17,285 ft., at 5.40 A.M. At 11 A.M. he had reached the height of 20,000 ft., and he got to the summit at 4 P.M. Over the last part the snow was very deep and soft, and the travellers experienced, as far as can be judged, the same sort of difficulties that Mr. Landor met with. They, however, were only able to make 500 ft. in 5 hrs. The total ascent was 3,200 ft., and occupied, including halts, 10 hrs. and 20 min. Mr. Whymper's ascent of 3,200 ft. and descent of the same distance occupied 16 hrs.‡

Mr. Landor, therefore, on tolerably similar ground, went more than eight times as fast as Mr. Whymper and the two Carrels, his guides, and rose through about twice the height that Mr. Whymper accomplished.

No one of the travellers or guides mentioned carried any burden approaching to a weight of 60 lb., and some of them only carried probably a very few pounds—say 5 or 6.

It is true that all the mountaineers mentioned wore the footgear they deemed most suitable for the work, and that none of them adopted the thin shoes Mr. Landor advocates. On the other hand, none of them carried 60 lb. dead weight during their ascents. The public have heard as much about Zurbriggen and the Carrels as about Mr. Landor, and will hardly class these guides as 'giddy and inexperienced mountaineers' because they wore hob-nailed boots. The natives in the Caucasus wear thin shoes without any nails. They are perfectly helpless on snow and ice, and a very ordinary walker, if wearing nailed boots, can easily outstrip them.

There is, therefore, an *à priori* case, strong enough to settle the matter in the minds of most people, against the possibility of Mr. Landor's ascent to 22,000 ft. Mr. Landor remarks in his book with reference to some information brought him: 'With my distressingly sceptical nature, I believe little that I do not see.' He should not consider it unreasonable if others, sharing the same

* Conway, *Climbing in the Himalayas*, p. 517.

† Whymper, *Travels in the Great Andes of the Equator*, p. 331.

‡ *Ibid.* p. 67.

frame of mind, require the strongest evidence in support of a performance so marvellous.

The evidence furnished is twofold.

Dr. Harkua Wilson, who gave in, overcome by mountain sickness at a height estimated at 20,500 ft. (this altitude does not appear to have been determined by any observations), certifies that Mr. Landor reached a height of 22,000 ft.* No grounds whatever are stated for this off-hand conclusion. No one can accept this as evidence.

Mr. Landor did not take his hypsometrical apparatus with him, † nor had he any mercurial barometer.

Mr. Landor took with him two aneroid barometers. One of these, furnished to him by the Royal Geographical Society, was only graduated to 20,000 ft., and had been tested to 15 in. This instrument, of course, was useless on the occasion.

Though not precisely so stated it appears therefore that the only observation that Mr. Landor could have taken for altitude consisted of a single reading of the aneroid graduated to 25,000 ft. Mr. Landor does not mention whether this instrument was tested before starting, or what its scale error was. This matters little. Unfortunately the instrument was not tested on his return. It is agreed by all competent authorities that at great heights aneroid determinations of altitude are unreliable even when the best instruments are used. The readings almost invariably indicate a greater height than has actually been attained. When the aneroid reading is a single one, not checked by the simultaneous employment of other means, and when the reading is uncorrected the observation is entirely valueless. It would be well if all explorers and mountaineers would realise fully this fact. No one acquainted with geographical methods, or even with elementary physics, can accept a single reading such as this as of the slightest value. Yet this single reading appears to be Mr. Landor's whole case as regards his ascent.

I do not for a moment imagine that Mr. Landor will admit that any error has crept into his account with regard to the altitude he believes he reached. Neither do I imagine for a moment that anyone who considers the circumstances impartially will come to the conclusion either that the ascent was physically possible or that the evidence in support of it is of any value.

In the 'Geology of the Central Himalayas,' by Mr. C. L. Griesbach, C.I.E., Superintendent of the Geological Survey of India, being vol. xxiii. of the 'Memoirs of the Geological Survey of India' (Calcutta, 1891), will be found reproductions of photographs of the Mangshan Pass, taken by Mr. Griesbach. The volume is in the library of the Royal Geographical Society, and copies of the photographs can be seen in the map-room, which is accessible to the public. The views show the summit of the Pass in the distance; the heights on either side of the broad snow saddle are insignificant, and certainly do not rise 1,000 ft. above it.

* Vol. ii. p. 243.

† See p. 162.

The 'incline' does not seem of a nature to alarm anyone. Indeed, the view shows a large nearly level glacier with two medial moraines; a very gradual short slope in the distance leads to the summit of the Pass. Over such ground it is quite inconceivable that anyone, under any conditions of snow and ice, should have been able to ascend at the rate Mr. Landor describes. The distance that would have to be covered in order to rise 6,000 ft. would be enormous. In the book referred to above, the height of the Mangshan Pass is given as 'nearly 20,000 ft.' Profiles of the range, drawn to a vertical scale, are also given. These indicate the height of the Mangshan Pass as between 19,000 ft. and 20,000 ft. Anyone who takes the trouble to examine the photographs will, I think, be forced to the conclusion that Mr. Landor is grievously in error in asserting that the top he reached was near, or above, the actual summit of the Pass.

C. T. DENT.

GSPALTENHORN.—On July 27 Mr. Frederick Gardiner, accompanied by the guides Rudolf and Peter Almer, left the Mutthorn S.A.C. hut at 3 A.M., crossed the Gamchilücke, and descending the Gamchi Glacier for about 800 or 900 ft., traversed easy snow-slopes under the Rothe Zähne and Gspaltenhorn, until the foot of the great couloir between the Büttlassen and Gspaltenhorn was reached. From that point the usual route taken for the ascent was followed. Time from Mutthorn hut to col between the Büttlassen and Gspaltenhorn 2½ hrs.' actual walking, and from that point to top, 2 hrs., the rocks not in very good condition. As the usual way of approaching the Gspaltenhorn is by first crossing the tedious Sefinen Furgge and passing the previous night in the uncomfortable Gamchibalm, the excellent shelter of the Mutthorn hut and the ascent of the mountain *via* Gamchilücke is an agreeable alternative.

LA SCIASSA (3,480 m. S. map: 3,477 I. map).—With Pierre Maître and Pierre Georges of Evolena I started from Chanrion for the Sciassa, July 24, 1897. Deterred by the appearance of the bergschrund under it we tried to make a circuit by the summit E., ascended by Mr. Parish and myself by mistake in 1881.* The name Punta Boetta is now suggested for it, and West Col de Blancien for the gap E. of it.† There appearing, however, not to be time to continue the expedition and reach Arolla, we descended to the latter place, and returning on the 26th ascended the Sciassa from the pass on the other side next Mont Oulie, first crossing a low side gap S. of pt. 3,199. The last part of the arête is narrow and jagged. There seemed to be no trace of a previous visit; we made a cairn on the summit and on point 3,321 I. map.

Mr. G. E. Foster records an ascent of the Sciassa from the

* *Alpine Journal*, vol. x. p. 492.

† See my panorama, *Alpine Journal*, vol. viii. *init.*, where the east and higher Col de Blancien appears below the Bec de Lusény, with the point on the ridge reached by me, 1879, just to the right. *Ibid.* vol. ix. p. 365. The Col des Rousses is now called Col de Sassa, 3,183 m., on I. map.

summit of the Col de la Reuse d'Arolla,* but it was long ago suggested that either La Sengla [which must command a fine view] was the peak, or the col was confused with the Col d'Otemma. † I learn from Mr. Foster that he has forgotten the details of the expedition except that the ascent was very easy, and, in recording it, he thought it a pity that others crossing the pass should not gain the view from the peak. He writes: 'At the time Hans Baumann and I were new to the neighbourhood, and no doubt depended on our porter [from Evolena] for nomenclature. Either he took us over the Col de la Reuse d'Arolla and up some wrong peak, or over some other pass and up the Sciassa. The first seems most probable, as, if I remember right, he said he had only crossed the pass once before.' The most likely explanation, however, is from the paucity of names on Dufour's map, the only mountain name on the range W. of Mont Collon for some distance being la Sciasso (*sic*), without height given, while there is no name or other mark to indicate the site of the Col de la Reuse d'Arolla. Mr. Foster, who used this, and had not seen the S. A. C. map, in a subsequent letter speaks of this solution as a very probable one.

COL D'OTEMMA.—The gap so marked on the S. map, as seen from the Sciassa direction, seemed to be impracticable on the Italian side. I before hazarded the conjecture that the name might be intended for the easy passage further E. mentioned above, but now think it probable that the true Col d'Otemma is the considerably lower gap between the Sciassa and Mont Oulie (called la Sangla also S. map, Bec d'Epicoum only Reilly's map), forming as it does the obvious passage between the middle part of the Otemma Glacier and Vallengelline. A mistake in the position on the map may have arisen from the confusion of names, L'Oule Cecca being an alternative name of La Sciassa ‡ on the S. map (not named I. map, and the word as applied to the valley below is written Sassa). This pass was crossed by me with Xavier Andermatten from N. to S., August 21, 1882, when we made an unsuccessful attempt on the Sciassa from it, a later attempt on the other side failing also.§

A. CUST.

* *Alpine Journal*, vol. ii. p. 415.

† See Studer's *Ueber Eis und Schnee*, vol. ii. p. 284. 1870.

‡ Now written Sziassa. See *Alpine Journal*, vol. viii. p. 94, according to which Sassa would be pronounced Chassa. There is no snow belt on the summit as on S. map, but as on I. map precipitous rock to S. On these names see *ibid.* vol. xii. p. 523.

§ Herr Wäber, formerly editor of the *Jahrbuch S. A. C.*, who kindly undertook to inquire into this matter for me, writes that he has failed to get a clue to the very intricate nomenclature of the chain between Col de Fenêtre and Col de Collon. Berthold's Triangulation has not a single name in this range. For the Siegfried map the authority was the Bagnes guide, Joseph Gillioz, the names being then submitted to Messrs. A. de Torrents and R. Ritz, of Sion, who, with some alterations in spelling, confirmed them. Herr Wäber being silent on the history of the Col d'Otemma, as to which I more particularly desired information, it would seem that no passage over the ridge between the Blancien and Mont Oulie is recorded in Swiss Alpine literature; accordingly, the appearance of the name in such a situation, first on the S. A. C. map and

WILDSTRUBEL DISTRICT.—*Les Faverges* (2,975 m.)—the highest point of the Autannaz Grat—can be ascended from the Wildstrubel Glacier in about $\frac{1}{2}$ hr., by easy snow slopes; and the Grat (which is a narrow ridge of rock) may be traversed as far as desired. Return by way of the Autannaz valley, which may be reached by either of the three following routes:—

1. At the E. end of the Autannaz Grat, quit the Wildstrubel Glacier, descend into the Autannaz valley by steep shale slopes and follow the Zesse Torrent.

2. W. of Les Faverges descend a small glacier shown on Swiss map, which discharges into the W. end of the Autannaz valley, and thence by shale slopes and the W. branch of the Zesse Torrent.

3. Skirt under the W. side of the Todthorn, and descend E. between the Todthorn and Mont Bonvin, by small glacier and snow slopes; ultimately joining route No. 2.

The Nusey Tritt, which forms the S. boundary of the Autannaz valley, may be crossed in three places. The usual route is by a goatherd's staircase, a few yards W. of the point at which the W. branch of the Zesse Torrent falls over the cliff—and this is the direct way in connection with routes 2 and 3. In connection with route 1, at least two more direct, but rather more difficult, ways, may be made down the cliff, at points a few hundred yards E. of that where the main or E. branch of the Zesse Torrent discharges over it.

afterwards on the Siegfried, remains unexplained (see also the above passage in Studer). I was told in 1879 that M. Girla crossed this ridge, while employed on the Government geological survey, with J. Anzevui and Elie Peter, of Ayer, being in search of a passage from Arolla to Bionaz. Anzevui also told me, in 1897, that he had crossed (on a different occasion?) the pass W. of the Sciassa, which he called Col de Grande Zamaine, that being the name by which he knew the valley on the Italian side.

In reference to the account of the above passes in *Climbers' Guide*, pp. 29, 30, and Ball's *Guide* (new edition, p. 450), it is unlikely, if the conditions are materially unchanged, that in the former days of mountain climbing a passage could have been effected over the gap marked Col d'Otemma on the map. This gap was never reached by me, and the *Climbers' Guide* is mistaken in attributing to Mr. Parish and myself an ascent of the Sciassa from it. The West Col de Blancien offers a finer passage from Arolla to Bionaz, especially if combined with the ascent of the Pta. Boetta, than the lower pass between the Sciassa and Mt. Oulie. On the Swiss side there is a bergschrund with a steep slope immediately above it to be reckoned on, and on this account in the reverse direction the alternative pass is preferable. The East Col de Blancien, from which the Blancien is reached, forms the most desirable passage in combination with the Col des Rousses (or Sassa) from Prarayan to the Otemma Glacier, but in the reverse way, for the reason mentioned in *Climbers' Guide*, it may be better to avoid the Col des Rousses. The *Climbers' Guide*, p. 31, attributing the ascent of the Blancien to Professor Baltzer (see *Alpine Journal*, vol. viii. p. 94 and ix. p. 365), I made inquiry of Herr Wäber, who has elicited from that climber himself that in the expedition referred to he did not ascend the Blancien, but an intermediate point between that peak and La Sengla; he then went up the latter, and descended on the W. side of it.

[We learn from Mr. A. G. Topham that on August 18, 1898, Signori F. Mondini and Canzio ascended the point marked 3,621 m. (between the Sengla and Blancien) by the E. arête. They found no cairn on it.—EDITOR.]

Time from Montana : Ascent, about 6 hrs. ; descent, 4 hrs.

On August 26, 1898, F. Corbett, G. L. Corbett, W. J. Clark, B. E. Clark, and O. B. Cowan, ascended Les Faverges from the Hôtel du Parc, Montana ; ascending by way of the Plaine Morte and Wildstrubel glaciers, and returning by the Autannaz valley, by route No. 1. The Plaine Morte Glacier was reached at a point immediately W. of the Todthorn, by shale slopes between Mont Bonvin and Tubang.

The Nuseyhorn (2,844 m.), lying between the Nusey Tritt and the Trubelstock, may be reached by either of the following routes :—

1. From the Autannaz valley, by shale slopes W. and then S. of the peak.

2. From the upper chalets of Nusey, by shale slopes S. of the peak.

3. From the Varnerkumme by shale slopes S. of the peak.

In either case, the final ascent is by easy rocks from the S. side.

Time from Montana : Ascent, about 5 hrs. ; descent, 3 hrs.

On August 29, 1898, F. Corbett, G. L. Corbett, W. J. Clark, B. E. Clark, and O. B. Cowan, made the ascent from the Hôtel du Parc, Montana ; ascending by route No. 1 and returning by route No. 3.

Pointe des Roses (2,820 m.) lies between the Wetzsteinhorn and Rohrbachstein and overlooks the Plan des Roses. It can be climbed in about 1 hr. from the plateau of the Plaine Morte, by way of the ridge connecting the peak with the Rohrbachstein.

Time from Montana : Ascent, about 5 hrs. ; descent, 3 hrs.

On August 30, 1898, W. J. Clark and G. L. Corbett made the ascent from the Hôtel du Parc, Montana.

Schneeegrat (about 3,050 m.)—This pass crosses the grat connecting the Schneehorn with the Wildstrubel, between the Schneehorn and the point marked 3,157 on the Swiss map, and (short of crossing the Wildstrubel) affords the most direct route between the Gemmi and An der Lenk, being considerably nearer than either the Lämmernjoch or the Schneejoch. The snow slope on the N.E. side is steep, but not difficult.

On August 1, 1878, Alfred Barran and Frederick Corbett (without guide) crossed the Schneeegrat from An der Lenk to Schwarnbach, passing over the S.W. portion of the Ammerten Glacier, skirting the Rüzli Glacier below the S. rocks of the Wildstrubel and crossing the Wildstrubel Glacier due E. to the col, which was reached by slopes of snow and shale ; thence descending to the Lämmern Glacier below the upper ice-fall and down glacier to the Lämmernboden.

Time : About 8 hrs., exclusive of halts.

FREDERICK CORBETT.