SHRI BHUPESH GUPTA: This is the thing which should not be allowed.

MR. CHAIRMAN: Your observations should not be allowed and his should not be allowed either

SHRI BHUPESH GUPTA: Here we are a party, and when the Prime Minister of the country makes such a remark it cannot be allowed to go unchallenged.

I am very sorry that Mr. Patel does not have even that much of sportsmanship in resoect of this matter

MR. CHAIRMAN: All right; we now pass on to the next item.

#### THE INSTITUTES OF TECHNOLOGY (AMENDMENT) BILL, 1963-continued

Mr. CHAIRMAN: The other day Mr. Khandekar had concluded his speech. There are others who would like to speak.

SHRr P. N. SAPRU (Uttar Pradesh): Mr. Sir, while Chairman wholeheartedly supporting the Bill, I should like to pose a number of questions for the Minister and I do so in no spirit of criticism but in a spirit of enquiry. First of all, I would like to know why there should be a separate institution at all. We have the Delhi Universty which is a first class institution and why should this Institute not be affiliated to the Delhi University? I rather think that the tendency to have separate institutions has been carried a little too far and it strikes me that one-faculty universities are not likely to yield those results which a university should yieM.

#### [THE DEPUTY CHAIRMAN in the Chair]

The second question I would like to ask the Minister is whether there is going to be any provision for the teaching of humanities in this Tech-

nological Institute. I think that there should be some connection or some relationship established between humanities and sciences. We should not have them compartmentalised. If we have them compartmentalised then we leave our technical students without that philosophy of life which the humanities are capable of supplying. Students of technology should have some acquaintance with the humanities as well.

The third point I would like to emphasize is that the number of persons, who would seek decent jobs after their education in technology, is great. All the men who get a high technical education are not able to get decent jobs. Perhaps the Minister will be able to tell us whether the demand for technologists is not greater than the number of men produced by the technological institutions. An equilibrium should be established between the two. Now, it is obvious that it is the scientific and technical education that has made the United States of America. Britain and Russia great. It has particularly made Russia great. The problem that Britain has to face is that the technical men, the scientific men, prefer the U.S.A. to Britain. There was recently a debate in the House of Lords on this question and it was said that the reason for their preference of the United States was that the facilities in Britain were not as good as the facilities in the United States.

It was not a question of pay. Certainly the salaries in the United States are higher, but it was not just a question of salaries. The facilities in the United States are better. Now, one of the difficulties that we have to face is that some of our best men remain in foreign service in preference to service in their own country. They prefer the United Kingdom or the United States to India and we have to find out the reason for that. It is all right to talk of sacrifice, but I rather believe that what we neeS

[Shri P. N. Sapru.]

in our scientists is dedication and not sacrifice. The salaries of I.A.S. men and I.P.S. men are higher than the salaries that we pay to our technical men. The salaries that we pay to o.ur technical men, the salaries that we pay to our scientists, should be higher than the salaries that we pay to our I.A.S. and I.P.S. men. We should try and attract the best talent that is available in the country to science and technology.

Then, I should like also to make one or two observations on the quality of staff in these institutions. The quality of the staff in these institutions depends upon the integrity of the selection committees. Now, I am glad that the U.P.S.C. will be responsible, as far as I can see, for selecting the staff. The U.P.S.C. has established a high reputation, but it has to be helped by experts. I hope that in appointing experts care will be taken to see that the very best men are selected for advising the U.P.S.C. in regard to appointments to these jobs. I know that in some of the States highly qualified technical men have been ignored. Men with less qualifications have been preferred to men with higher qualifications. That is not how things should be. Class and communal considerations have often played their part in the appointment of men in our scientific and technical institutions.

I would like to say that the question of admission to these institutions is also of an important character. I am for admission of the best candidates on merits to these institutions, but I would like to make one or two reservations in regard to this question of merit. We have the backward classes or the Scheduled Castes in this country. For centuries they have been victims of oppression and tyranny in this country and it is not possible for tihem

SHRI AKBAR ALI KHAN (Andlira Pradesh): They get preference in

their State colleges. Do you want it in all-India institutions also?

SHRI P. N. SAPRU; I think they should be given preference in all institutions, including all-India institutes. They should have opportunities of rising to their full stature. It may be desirable to some extent to expect lower standards from them for a period of five or ten years. I would like, therefore, the claims of these classes not to be ignored. I suppose there will be competitive tests, supplemented by oral tests, for these institutions. The oral test does not generally work in favour of the poor man. That is what I should like to emphasise.

Then. I should like to say that I am not one of those who think that third class students can do no good or can never be good. I am not prepared to have an arbitrary rule ruling, out the third class man. I have heard a great deal of controversy about third class men. I want just to remind the House that two of Britain's greatest Prime Ministers were fourth class graduates of Oxford. Sometimes a man matures late in life and just because he has got a third class, he should not be denied opportunities of higher education or the highest education available in the country. Of course, the general rule should be to select, as far as possible, the very best men and the very best men will naturally be the first and second class men turned out by our universities. For this reason it would be obvious to you, Madam, that I am not opposed. for a short period, say, five or ten years, to reservation in some shape or other being made in favour of the backward and depressed classes. To expect that these candidates will in the immediate future equal the best candidates from the nonscheduled castes, is to expect the impossible. Their home surroundings are different.

Then, there is another matter on which I should like to speak and I would like the Minister to take some

interest in it. The difficulty with our science departments is this. It is true also of our art departments. But I am taking about the departments of science and technology because we have a Bill dealing with science and technology. The difficulty with our science departments is that senior men do not encourage juniors in their work. The Heads of Departments are rather jealous of talent. I read a remarkable article on this point in the "Spectator" five or six years back. I do not happen to have the copy of the "Spectator" with me, but I have a clear collection of what the writer said. The article was headed: 'The case of Dr. Joseph'. The writer said that there is no doubt that Mr. Nehru is anxious that science should develop in India. He is very eager that there should be development of science in this country. He further said that there is no doubt that there are a few good scientists in this country, though the number of outstanding men is very small. He went on further to say that there was good scientific material in our country, and he pointed out that some of our laboratories at the technological institutions were good. But he said that in spite of all that the output was poor. Then he asked himself the question, why the output was poor. The principal reason that he assigned for this poverty of output was that senior men were jealous of talent; Heads of Departments and Deans of Faculties were not sure of themselves and they did not want their junior to outshine them. In some of the western countries it is just the other way about. I was reading the other day Ernest Barker's "Age and Youth", and Ernest Barker says in that book that he used to look upon his pupils as projections of himself. I should have liked teachers to look upon their pupils as projections of themselves. Unfortunately, speaking with all respect to the teaching profession, that is not the case. I have had personal experience, and I have known cases where highly qualified men have not been preferred to less qualified men because the teacher or the Head of

the Department or the Dean of the Factulty is a little jealous of talent. This is a sorry state of things, and we should impress upon our men that it is their bounden duty to be fair and objective in their assessment of the work of their juniors. It is their duty to help their juniors in every way possible.

I should like also to say that we have not been supplied with the de tails of the constitution which Will govern this Institute. On the Board Institute, Parliament of this should also find some representation. I think there is talent, even scientific talent, in Parliament, and Parliament should have representation on this Board. It is desirable that there should be direct contact between the institution Parliament.

Then we have, I think, four institutions-Mr. Humayun Kabir will correct me if my number is wrong. But since we are having institutions separate or one-faculty universities— I call them one-faculty universities since we are having one faculty only -I think it is desirable that these institutions should be larger in number than they are. We are a country of 450 millions. We have to think of the claims of the South, we have to think of the claims of Bengal, and we have to think of the claims of States other than Uttar Pradesh, Madhya Pradesh, Rajasthan and Punjab. These States are very important but they should not dominate the picture and, therefore, it is desirable that we should have institutions in the South of a high character also. There is a lot of talent particularly scientific talent, in the South. After all, it is the South that produced Ramanujam, it is the South that produced Raman, it is the Punjab which has produced Birbal Sahni. I do not know what the exact contribution of Uttar Pradesh is to scientific knowledge, and I think it is a matter for investigation why the Punjab is forging ahead and why the South is forging ahead and we are

[Shri P. N. Sapru.]

lagging behind. I say this with regret because I am proud of Uttar Pradesh, we have high traditions.  $W_e$  have good universities, but the standards of our universities and our institutions are going down.

PROF. M. B. LAL (Uttar Pradesh): Are you proud of it?

SHRI P. N. SAPRU: No, I am not proud of it. I am sure that Prof. Lai who can teach me political science for at least twenty years will bear me out that I am right. He was one of the best teachers of political science in our State, a subject in which I am interested. There are many reasons for this decay in standards in Uttar Pradesh. One of these reasons is the apathy of the general public towards higher education.

Then, I should like also to say that there is a tendency here to expect that science will yield or scientific knowledge will yield immediate results. There is more emphasis here on what is called applied science than on pure science. Now, I am not a scientist but I rather think that fundamental research is of great importance. Fundamental research is the pivot round which applied research revolves. You cannot have good applied research without fundamental research, and attention should be paid to fundamental research in these institutions. We are not, in this country, aware of the true scope and magnitude of the growth of scientific thought and knowledge. Science has progressed in the U.S.S.R., science has progressed in the U.S.A., science has progressed even in the U.K., because attention has been paid to science. lUnfortunately here our education in the past has been far too literary. Even in the field of literature our output is poor because while we have paid and rightly paid attention to expansion, we have not paid enough attention to efficiency. We have not recognised that creative

i effort is necessary for human welfare. We have not recognised that without creative effort life would be not worth living, and we have not recognised that without creative effort great things cannot be accomplished. And we must give scope for the development of creative effort in our institutions. This will require an overhaul of our educational system. Our educational system is dominated by old ideas. We have to imbibe some of the new spirit that pervades other countries and we should, in this matter, take a lesson from the West and from the Soviet Union. I see no reason why we should not send some of our men for training in science to the U.S.S.R. and the U.S.A. We can select a few top-ranking men and give them facilities to go abroad and broaden their vision and outlook, and they are sure to render a better account of themselves than is the case at present.

I would suggest that our very able Minister of Scientific Research and Cultural Affairs, who is also incharge of Education should set up a Research Bureau whose main task will be to carry out research in all the branches of knowledge including sociological knowledge. Efforts should be made to integrate scientific thought and method with aspects of national life. There should be a connection established between scientific thought and national life. That effort will require a great deal of thinking and research and I think the Minister should rise to the occasion. There should be a Bureau of Scientific Research attached to the Ministry for this purpose. Our efforts should be to promote independence of thought, and we should try and give all possible facilities for creative effort so that our country may become scientifically great. If it becomes scientifically great, it will become militarily great because military greatness today means greatness in science. We are not living in the days of Rana Pratap, we are living in a thermo-nuclear age, and it is tine greatness which will help us to achieve military greatness, assuming that military greatness is a desirable ideal.

Thank you very much for the time that you have given me.

SHRI SANTOKH SINGH (Delhi): Madam Deputy Chairman, I rise to support the Institutes of Technology (Amendment) Bill, 1963. The object of the amending Bill is to upgrade the present College of Engineering and Technology at Delhi into a full-fledged Indian Institute of Technology. It is stated that the United Kingdom through its British industries has increased the assistance from £2,50,000 to £6,50,000 for equipment and will also make available services of five more Professors in addition to the already existing ten Professors. Britain is also understood to have undertaken to help us in training Indian stafF for this Institute in Britain itself.

I welcome this move for upgrading the Delhi College of Engineering and Technology into a regular Institute of Technology. This is in addition to the already existing four Institutes of Technology at Kharagpur, Bombay, Madras and Kanpur. This will add to the training of technical people in India more and more. Because of the fast rate of industrialisation in India, we require more of tenchnical men. As a matter of fact, the need for technical people is much more than what our technical institutions are able to produce today. In this august House, it was said the other day that the number of technical men was more and that they were not getting employment (Maybe at some places there is a little unemployment. It may be for some time only. But ultimately, the number of these technical people required is going to be much more than we can think of. To give the example of the U.S.A., only a few years back it was stated 504 RSD-4.

that especially during the period when the space research work was going on, they felt a shortage of about one thousand people and they had to import them from England and other countries—chemists, engineers and scientists—to cope with the work. So, similar is the case in our country. With increased industrialisation, we will be requiring more of technical personnel.

Regarding the quality of these technical men, I want to make a point that in our institutes we should try to have better people to teach them. The staff should be very good so as to make this Institute of Technology at Delhi the pride of India. It is said that good talent does not come to these Institutes because the teachers are not very well paid. I wish that the Minister of Scientific Research and Cultural Affairs should take a special interest and invite very nice talent to this institute by paying the highest scales of salary. This should generally be done. I certainly want that all the teachers of these Institutes and engineering colleges should be very well paid so that we can attract the best of talent. This is regarding the quality of the teachers so as to train good quality people.

I also want to make a point as regards the Institute of Technology at Delhi, since I represent the State of Delhi in this august House. I want to make a point regarding admissions. We have various engineering colleges and institutes in all the States of the Indian Union. They somehow or the other—because of regional feelings—do not admit outsiders in their (institutes. In *f* our Institute at Delhi and at other colleges we admit all the students from the Indian Union and the Union Territories. I want to say that some reservation should be made in the colleges of the other States for the students of Delhi and,

[Shri Santokh Singh.]

as far as the Institute of Technology is concerned, some sort of reservation, say, about 25 per cent, should be made for the students of Delhi, so that the parents in Delhi can get their wards admitted into these Institutes. I may not be criticised for this because if we were to consider the point of view of admissions in the context of the regional feelings of the other States, I think my point will be fully appreciated. But, on this point, I want to make it clear that while making reservations, I do not in any case recommend that third class students or students who are deficient-I would not say they are bogus because honourable Mr. Sapru has said some third class and fourth class students also come up ultimately, I call them deficient students-may be admitted into these institutions and colleges. But at least good students from the Delhi State should be given precedence over others so that we can feel proud as the whole country would feel proud of this Institute. So Delhi students also should get this reservation.

Now, a point has been made by Shri Bhargava twice in this august House regarding the scientists, engineers and chemists who have taken up employment in other countries. To some extent, I do agree with him that they should possibly be brought back to serve our own country. There is need of everybody, specially of good scientists and good engineers who could be very useful. But, Madam, on this point I do not agree with him wholly. I should say that on the next point I wholly disagree when he says on the floor of the House that he wants them to come back. If they get some employment there, well and good. To say that the best of them are there, I do not agree. No doubt there are facilities in other countries. They get employment because our people do work worth two dollars even though they may be paid one dollar; they serve very well. And

they get employment easily. But to say that they are the best I do not agree because the best people are only those who come back, not only get employment in the Government of India on lower salaries, but as a matter of fact, the best are those who can start something at their own initiative in the country. And that kind of people we are producing daily in our own institutes, in our own universities. The number of these people is quite large, in thousands. So we should not think in terms of bringing these people back. We should think in terms of increasing the output of engineers and scientists. Therefore, the number of institutes must be increased.

I support, Madam, the second point of Shri P. N. Sapru that some Members of Parliament must be associated with these institutes to make them take more interest. I support this remark of Shri Sapru.

Honourable Shri P. N. Sapru made another point. While Madras and Punjab have been able to produce men of technology, men of science, perhaps much more than his own State of U.P., I want to say one word about Punjab. I am proud our men have been of great intelligence. They have been good men of technology, industry and peasantry and they have done very well. They are healthy. They are intelligent..

SHRI ARJUN ARORA: (Uttar Pradesh): And charming too.

SHRI SANTOKH SINGH: Charming too.

SHRI P. N. SAPRU: As Mr. Arora.

SHRI ARJUN ARORA: I am a U.P. walla, as Mr. Santokh Singh is.

SHRI SANTOKH SINGH: One more point and I resume my seat. It is again regarding Shri Sapru's speech

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these observations, Madam, I commend this Bill and resume my seat.

عبدالغلى (يلجاب) : ميدّر ارجن درنوں ساتھ ساتھ جا رہے تھے سامنے سے ایک ناتا یای سهاهی

آج مجھے خوشی ہے کہ ایک نوجوان منستو اس نازک مسئله میں دلد لے رہے میں - یہ سائنس ھے? انتسالوں کے لگے ریسرے ہوں ، ملک کی ترقی کے لئے ریسوے ہوں

میدم - میں سہرو صاحب کے ساتھ اتفاق ركهتا هول - كدّى استيتون میں ایسی حالت ہے که کیهی پېلک سروس کيهن کو پچاس پرسات کا کہتے میں که تم کوٹھ بههیم دو اور اس میں بھی تم اتا زيادة بهيجو جس مين هم اينا انتخاب کر سکیں - کبھی وہ ۲۵ پرسلت کا کر دیا جاتا ہے کبھی کچه کر دیا جاتا ہے۔ لیکن خیر۔ یہ حکومت کے اپلی جگہ کے کارنامے هیں ولا کرتے رهیں - معهد ایک دکھ ھے کہ اس طرح کے جو ممارے بهترین یا قابل فضر لوگ هیی ان میں سے کنچے ہوے نیسس آدمیوں نے خودكهي كرلي هاراكهري كرلي -جن میں ایک مستر کلئیر تھے اور ایک ایلکاو اندین تھے جن کا نام مهرے دساغ سے تکل گھا ہے۔ وہ بوے هي قابل سائلتست تھ اور انہوں نے ھاراکھری کی کھونکھ ھم لوگ ان کی قدر نہیں کر پائے - جتنا وہ تيزرو كرتے هيں همارا اپريسههي اس کے بحجائے همارا سلوک اس سے اتقا ہوا مے کہ جس سے بحجائے اس کے که ان كى قابلهت كا همين فائدة بهنستا انہوں نے خودکشی کرنی - اس لیے جهسا سب نے کہا یہاں قابل آدمیوں کو اتفا ہو کہ وہ یافر کے ملکوں کی طرف نه دیکههی اور ان کے دساغ سے هم يهي فائدة اتهائين - مستر كلثير بہترین انجهدهر تهے نه صرف نارته کے

[شرى عبدالغلي] کوششهن هون ۽ يه اچهي بات هے -مهن محسوس کرتا هون که اگر مهور منستر صاحب کو میارکیاد دوں تو اس میں کوئی فلطی نہیں ھوگی کہ وہ اپنے دیش کو پھر سے ایک بار ابهرتا دیکها چاهتے ههی -جو طالب علم هيس اور جن كا دماغ اس طرح سے جلتا ہے ان کو زیادہ سے زیادہ موقعہ ٹیکنیکل کالجوں میں برهام کے لئے دیا جانا جاھیئے اور اس کام کے لئے چٹلی رقم ہو رہ اس میں لٹائی جانی چاهیئے لیکن هم یہ نہیں لکا پا رہے ھیں اس کا کارن یہ ہے کہ هم دکھاوے کے لئے اور دنیا کو بہلانے کے لگے أن دو چھزوں پر اینا رویده زیاده برباد کر رهے هیں -

دو سوال بهت اهم يهان العه -ایک جو بھارگو جی نے اٹھایا که جو قیزرو کرتے ههی ان کو سوقعه نههی ملتا ان کے ساتھ انہاے ہوتا ہے چاہے اس کے نمبر کالے می زیادہ کیوں نہ ھوں - اور دوسرا ھمارے دیعی کے قابل فعصر بزرگ سیرو صاحب نے الهايا كه جتنى ايسى جماعتين هين جهسے پبلک سروس کمهش هیں مختلف استهالون میں تو کئی استهتهی ایسی هیں که جہاں جو قدر کے قابل ھیں جن کی قدر کی إلجائي چاهيئے جو تيزرو کرتے هيں ان کا حق جهین لیا جاتا ہے۔

كا كوأى فائدة نهيم - اكر واقعى كوثى ایسے معبروں کو یہ سمجھیں کہ اس انستی تھوشن کے ساتھ رهیں جاھے وہ کیوں نه سرکازی پارٹی کے هوں صحبے اس سے بحث نہمں لیکن اگر واقعی ان کو کوئی دلچسپی د اور ولا انهائے کو روکنا چاهتے هیں تو وہ قابل مبارک باد هين - ميڌم - يه مين کيس كهتا هون - اس والت همارے ديش مين ايك عجهب حالت هو گئے ه يعلى جناب نے ديكها هوا كه سهويم كور كا ايك فيصلة آيا أور وة فهصله پہاں تک تھا کہ اس میں ہوے سے ہوے آدمی کو انہوں نے بخشا نہیں -وہ کہتے میں که یہاں نیپوٹزم هوتا هے ميلافائيٽي هوتي هے، کريپشن هوتي هے -آپ نے دیکھا ھی ھوگا کہ کل سارے المبارون مين آيا اور مين نے چيرمين صاحب کی توجه بھی اس طرف ميذول كوائي تهي - همارم اكهو على خان صاحب اور دوسرے جو نیک اور قابل ترین صمیر بیهتے هیں وہ اس ہات کا خیال کریدگے کہ آج اس طرح سے چیف منستر برایمانیاں کرتے میں اور ان ير . . .

उपसभापति : श्राप विल पर बोलिये ।

شرى عبد الغلى: اس انستى تیوشن کو جو یہ شان سے آگے بوھانا چاہتے میں ترقی دینا چاہتے میں ميں أن س صرف يه عرض كونا چاهتا ھوں کہ ایسے منبرس اس میں ن*ہ* 

بلکھ سارے قیمس کے اور انہوں نے خودکشی کی - ان کے ساتھ استیت سرکار نے پولیس افسران نے، استیت سرکار کے چیف ملسار نے نہایت نازيبا اور خلاف انسانيت سلوك كيا تها - مهن چاهونکا که جهان هماري سركار اس تهكلهكل ايجوكهش كو حالفس کی ریسرچ کو ترقی دیدا چاهتی هے وہ قابل مبارک باد مے لهکن اس باسا کا ضرور شیال کوے که جو نهوراتزم جو فهوراتزم هر جكه آ رها هے ولا كم از كم اس شان دار انسالي تهوشن میں ند ئے - میں خوش ہوا اور هلسا بھی جب مجھ سے پہلے آنریمل معبو نے ہے کہا که کنچے پارلیمات ع معبواس مين هونے چاهايين -ميدّم - مهن هاستا هون که يهان س ایک دیلی گیشی باهر بهیجا جا رها هے اور س مهن همارے هاؤس کے ایک سبر صاحب کا بھی نام ھے -میں نے مس مہینے میں کبھی یہاں ان کو کوئی تقریر کرتے نہیں سناہ کوئی سوال کرتے تہیں سنا نه ان کا نیاز حاصل هوا شهروانی صاهب کا - اگرچه اس انستی تیوشن کے ساتھ تعلق ایسے لوگوں کا هی هے ایسے پارلیملت کے معبر صاحبان کا تعلق جوزنا مے جوں کو اس مضمون سے کوئی دانچسپی نہیں مے تو اس سے البته ان کی اشان بلتی ہے ان کا اثر بوھتا ہے لیکن اس

## [شرى عبدالغني]

جائیں جو بجائے نیک نامی حاصل کرنے کے سپریم کورٹ کا سرائینکیٹ خاصل کریں که میلاقائیدی فے، کرپشن فے - میں یہ کیوں کہتا ہوں . . .

SHRI P. N. SAPRU: On a point of order. There must be some connection between the subject of discussion and the Bill.

THE DEPUTY CHAIRMAN: That is what I told him. He should speak on the Bill. Mr. Ghani, if you have exhausted your points, then you can finish your speech.

شری عهد الغلی: میقم - میں فی کوئی خطرناک بات نہیں کی - میں میں نے تو اتفا کیا که پارلیمنٹ کے ممبر صاحبان کو سودار سفتوکو سفتھ نے کہا که لیفا چاهیئے اور میں نے کہا که ایسے آنریبل ممبران کو نہیں لیفا چاهیئے جن کو اس مضمون سے دانچسپی نہیں فی اس مضمون سے دانچسپی نہیں فی -

श्री प्रकाश नारायण सप्नू: श्रापको ले लिया जायगा।

شری عبد الغلی: اجی - مجه کو کون لے لے کا - که ماں اللہ سنگھ تمبودار مرکها کون هوکا ? اس نے کہا گلاب سنگھ - کلاب سنگھ مر جائے تو اس نے کہا شہام سنگھ مر جائے تو اس نے کہا شہام سنگھ مر جائے تو اس نے کہا شہام سنگھ مر جائے تو اس نے کہا بیتا چاہے سب مر جائھی تمہازا نمبر نہیں آئیکا - یہ تو میں جانتا هوں اور اس کا کوئی گلک میں مجھے نہیں قد اس کا کوئی گلک

بَهُوْ خَالَ مَین یه عَرْض کو رها تها که یه شک هتایون کیهو ضاحب متبرون کو لین لهفی ایسی منبرون کو لین لهفی ایسی منبرون کو لین جو سپریم کورٹ سے کوئی ورقائت نه لے آئیں تاکه مصیبت نه پر جَائے – بهر حال میں یه قرش کو رها تها گه سائٹس میں هماری دیفی مین ایسا نهیں هو سنتا جهسا انہوں نے کہا شردار سنتوکه سنگھ نے – آج بهی مستر بهانها جو هیں انہوں نے دلیا میں نام بھدا کیا ہے –

एक माननीय सदस्म : किन्होंने ?

شرق عید الغلق: بها بها نے جو همارے سائنس کی ریسرچ کرنے والے هیں - انہوں نے دنیا میں نام پیدا کیا - آج بھی کتفے ہیدا هو سکتے هیں یہاں ودیارتھی جو همارے دیعی کے نام کو اونچا کویں -

مهدّم = مهن پهر ايک باو هنايون کهيو ساهب کو اس بل کے لائے پر مهارگباد دایدا هون -

ं श्रि अब्दुल गनी (पंजाब): मैंडम डिप्टी चेयरमैंन, हजार वर्ष हुए कि अपना देश इस साइंस की दुनिया में भी सबसे आगे था। आपको याद होगा कि भगवान कृष्ण और वीर अर्जुन दोनों साथ-साथ जा रहे थे तो सामने से एक नंगे पांव सिपाही आ रहा था। तो भगवान कृष्ण ने अर्जुन से कहा कि यह बड़ा जबर्दस्त है और इसके पास ऐसे शस्त्र हैं जो हमारी तमाम फीज को तबाह बरबाद कर देंगे। वीर अर्जुन बड़े हैरान हुए और कहा कि क्या किया जाये। इस

<sup>†[ ]</sup> Hindi transliteration.

पर उन्होंने कहा, कि हम साध्यों के भेष में हैं और इससे भिक्षा मांगते हैं जब वह मान जायेगा तो इसका सिर मांगेंगे। फिर मजन ने मागे कहा कि वह शस्त्र नया हैं तो उन्होंने कहा, मैं इस का तजुर्बा कराये देता हूं। उस सिपाही ने बतलाया कि जब वह चीज छुटेगी तब इससे दरख्त का हर एक पत्ता छलनी हो जायेगा। तब भगवान ने कहा कि छोड़ो. श्रीर उन्होंने एक दरस्त का बत्ता ग्रपने पांव के नीचे रख लिया ग्रौर तीर उतर ग्राया। इस पर ग्रर्जन को ग्रहसास हमा कि यह कोई खतरनाक भादमी है। वह क्या चीज थी, एटमबम था या तीर था, मैं नहीं जानता और न मैं इस बात पर पड़ता हं लेकिन इस दुनिया में ग्रौर इस साइंस की दुनिया में भारत श्रागे निकल मया था जो हम सबके लिये गौरव की बात है।

ग्राज मझे खशी है कि एक नौजवान मिनिस्टर इस नाजक मसले में दिलचस्पी ले रो हैं। यह साइंस की दुनिया है, इंडस्ट्री के लिये रिसर्च हों, मुल्क की तरक्की के लिये रिसर्च हों, कोशिशें हों, यह अच्छी बात है। मैं महसूस करता हं कि ग्रगर मैं मिनिस्टर साहब को मुबारकबाद दूं तो इसमें कोई गलती नहीं होगी कि वह अपने देश को फिर से एक बार उभरता देखना चाहते हैं। जो तालिब-इल्म हैं ग्रौर जिनका दिमाग इस तरह से चलता है उनको ज्यादा से ज्यादा मौका टैक्नीकल कालेजों में पढ़ने के लिये दिया जाना चाहिये भीर इस काम के लिये जितनी रकम हो बह इस में लगाई जानी चाहिये। लेकिन हम यह नहीं लगा पा रहे हैं। इसका कारण यह है कि हम दिखाने के लिये और दुनिया की बहुलाने के लिये इन दो चीजों पर अपना रुपया ज्यादा बरवाद कर रहे हैं।

दो सवाल बहुत ग्रहम यहां उठे। एक जो भागव जी ने उठाया कि जो डिजर्ब करते हैं उनको मौका नहीं मिलता, उनके साथ ग्रन्याय होता है जाहे उनके नम्बर कितने

ही ज्यादा क्यों न हों। भीर दूसरा हमारे देश के काबिले-फख्, बुजुर्ग सप्रू साहब ने उठाया कि जितनी ऐसी जमायतें हैं जैसे पब्लिक सर्विस कमीशन हैं मुख्तलिफ स्टेटों में तो कई स्टैटें ऐसी हैं कि जहां जो कद्र के काबिल हैं, जिनकी कद्र की जानी चाहिये, जो डिजर्व करते हैं उनका हक छीन लिया जाता है। मैडम, मैं सप्र साहब के साथ इलफाक रखता हं। कई स्टेटों में ऐसी हालत है कि कभी पब्लिक सर्विस कमीशन को पचास परसेन्ट का कहते हैं कि तुम कोटा भेज दो ग्रीर उसमें भी तुम इतना ज्यादा भेजो जिसमें हम अपना इन्तखाब कर सकें। कभी वह पच्चीस परसेन्ट का कर दिया जाता है, कभी कुछ कर दिया जाता है। लेकिन धीर यह हुकुमत के अपनी जगह के कारनाम हैं, वह करते रहें। मुझे एक द:ख है कि इस तरह के जो हमारे बेहतरीन या काबिले फहा लोग हैं उनमें से कुछ बड़े फेमस बादिमयों ने खुदकशी कर ली, हाराकीरी कर ली। जिनमें एक मिस्टर किलयर थे और एक एंग्लो-इंडियन थे जिनका नाम मेरे दिमाण से निकल गया है। वह बड़े ही काबिल साइंटिस्ट थे ग्रीर उन्होंने हाराकीरी की क्योंकि हम लोग उनकी कद्र नहीं कर पाये जितना वह डिजेर्व करते हैं, हमारा एप्रीसिएशन इसके बजाय हमारा सलक उनसे इतना बरा है कि जिससे बजाय उसके कि उनकी काबिलियत का हमें फायदा पहुंचता उन्होंने खदकशीकर ली। इसलिये जैसा सबने कहा, यहां काबिल ग्रादिमयों को इतना दो कि वह बाहर के मल्कों की तरफ न देखें भ्रीर उनके दिमाग से हम भी फायदा उठायें। मिस्टर किलयर बेहतरीन इंजीनियर थे न सिर्फ नार्थ के, बल्कि सारे देश के ग्रौर उन्होंने खुदकशी की । उनके साथ स्टेट सरकार ने. पुलिस अफसरान ने, स्टेट सरकार के चीफ मिनिस्टर ने निहायत नाजेबा भौर खिलाफे इंसानियत सलुक किया था । मैं चाहंगा कि जहां हमारी सरकार इस टैक्नीकल एजकेशन को, साइंस की रिसर्च को तरक्की

## श्री अब्दल गुनी

देना चाहती है वह काबिले मुबारकबाद है लेकिन इस बात का जरूर ख्याल करे कि जो नेपोटिज्म, जो फेबरीटिज्म हर जगह श्रा रहा है वह कम से कम इस शानदार इंस्टीट्यूशन में न आये। मैं खुश हुआ और हंसा भी जब मुझसे पहले ग्रानरेबिल मेम्बर ने यह कहा कि कुछ पालियामेन्ट के मेम्बर इसमें होने चाहियें। मैडम, मैं हंसता हं कि यहां से एक डलीगेशन बाहर भेजा जा रहा है और उसमें हमारे हाउस के एक मैम्बर साहब का भी नाम है। मैंने दस महीने में कभी यहाँ उनको कोई तकरीर करते नहीं सुना, कोई सवाल करते नहीं सुना, न उनका न्याज हासिल हम्रा, शेरवानी साहब का। ग्रगरचे इस इंस्टीट्युशन के साथ ताल्लुक ऐसे लोगों का ही है, ऐसे पार्लियामेन्ट के मेम्बर साहिबान का ताल्लुक जोड़ना है जिनको इस मजमून से कोई दिलचस्पी नहीं है। तो इससे ग्रलवत्ता उनकी शान बनती है, उनका ग्रसर बढ़ता है लेकिन इसका कोई फायदा नहीं। ग्रगर बाकई कोई ऐसे मेम्बरों को यह समझें कि इस इंस्टीट्यूणन के साथ रहें चाहे वह क्यों न सरकारी पार्टी के हों, मुझे इससे बहस नहीं। लेकिन अगर वाकई उनको कोई दिलचस्पी है और वह अन्याय को रोकना चाहते हैं तो वह काबिले मुबारकबाद है। मैडम यह मैं क्यों कहता हं ? इस वक्त हमारे देश में एक अजीव हालत हो गई है यानी जनाब ने देखा होगा कि सप्रीम कोर्ट का एक फैसला आया और वह फैसला यहां तक था कि उसमें बड़े से बड़े आदमी को उन्होंने बच्चा नहीं । वह कहते हैं कि यहां नेपोटिज्म होता है, मेलाफाइडी होती है, करप्शन होती है। आपने देखा ही होगा कि कल सारे ग्रखवारों में ग्राया ग्रीर मैंने चेयरमैन साहब की तवज्जों भी इस तरफ मञ्जूल कराई थी। हमारे अकवर अली खां साहब ग्रीर दूसरे जो नेक ग्रीर काबिलेतरीन में म्बर बैठे हैं वह इ स बात का ख्याल करेंगे कि आज इस तरह से चीफ मिनिस्टर बेईमानियां करते हैं और उन पर . . .

उपसभापति : श्राप बिल पर बोलिये !

श्री ग्रब्दुल गनी : इस इंस्टीट्युशन को जो यह शान से आगे बढ़ाना चाहते हैं, तरक्की देना चाहते हैं मैं उन से सिर्फ यह श्रर्ज करना चाहता हं कि ऐसे मेम्बर्स उसमें न जायं जो बजाय नेकनामी हासिल करने के सुप्रीम कोई का सार्टीफिकेट हासिल करें कि मेलाफाइडी है, करप्शन है। मैं यह क्यों कहता हं ..

SHRI P. N. SAPRU: On a point of order. There must be some connection between the subject of discussion and the Bill.

THE DEPUTY CHAIRMAN: That is what I told him. He should speak on the Bill. Mr. Ghani, if you have exhausted your points, then you can finish your speech.

श्री ग्रब्दुल गनी : मैडम, मैंने कोई खतरनाक बात नहीं की । मैं ने तो इतना का कि पार्लियामेंट के मेम्बर साहितान को सरदार सन्तोख सिंह ने कहा कि लेना चाहिये और मैं ने कहा कि ऐसे ग्रानरेविल मेम्बरान को नहीं लेना चाहिये जिनको इस मजमून से दिलचस्पी नहीं है ।

श्री प्रकाश नारायन सप्र : ग्रापको ले लिया जायगा

श्री ग्रब्दल गनी: ग्रजी मुझ को कौन ले लेगा । कि मां लाल सिंह नम्बरदार मर गया, कौन होगा? उसने कहा गुलाब सिंह । गलाब सिंह मर जाय तो उसने का राम सिंह । राम सिंह रूर जाय तो उसने करा श्याम सिंह । श्याम सिंह मर जाये, तो उसने कहा, बेटा चाहे सब मर जायें तुम्हारा नम्बर नहीं ग्रायेगा । यह तो मैं जानता हुं ग्रीर इसका कोई गिला भी मुझे नहीं है।

बहरहाल ैयह अर्ज कर रहा था कि बेशक हुमायूंन कंबिर साहब मेम्बरों को लें लेकिन ऐसे मेम्बरों को लें जो सुप्रीम कोर्ट से कोई विडिक्ट न ले आर्ये ताकि मुसीवत न पड़ जाय। बहरहाल, में यह अर्ज कर रहा था कि साइंस में हमारे देश में ऐसा नहीं हो सकता जैसा कि उन्होंने कहा, सरदार सन्तोखिंसह बे। आज भी मिस्टर भाभा जो हैं उन्होंने दिनया में नाम पैदा किया है।

एक माननीय सदस्य : किन्होंने ?

श्री अब्दुल गती : भाभा ने जो हमारे साइंस की रिसर्च करने वाले हैं। उन्होंने हुनिया में नाम पैदा किया। आज भी कितने पैदा हो सकते हैं यहां विद्यार्थी जो हमारे देश के नाम की ऊंचा करें।

मडम, मैं फिर एक बार हुमायूंन कविर साटब को इस बिल के लाने पर मुबारकबाद देता हूं।]

شری اے - ایم - طارق (جدوں اور کشمیر): یه جو هدارے سردار سنتوکه سلکه هیں انہوں نے بھی نام پیدا کیا هر دنیا میں -

ं[श्री ए० एन० तारिक (जम्मू और काश्मीर). यह जो हमारे सरदार सन्तोखसिंह हैं इन्होंने भी नाम पैदा किया है दुनिया में।]

SHRI ARJUN ARORA: Madam, this is a very good Bill in a way but it must be realised that in this country we have four Institutes of Technology and this Bill will give us the fifth only de jure and not de facto. What I mean is that the scope of technical education in the country will not be enlarged by this august House passing this Bill. Only one Institute, it appears Members from Delhi like very much, will get a higher status. I have no objection to another Institute being given a higher

status and therefore I support the Bill but I want the Government, this hon. House and the country to know that the mere passage of this Bill in this House and the other will not enlarge the scope and the facilities for technical education in the country. The need in the country today is more and more technical education, bigger bias to technical education. The Minister for Scientific Research and Cultural Affairs, who, I am glad to say, has now also become the Minister for Education—and I take this opportunity to congratulate him on this acquisition—said the other day that though thousands appear competitive examinations for these in the Technical Institutes, only hundreds are admitted and he has no intention of increasing the seats in these Institute\*. While there may be a limitation of the. number of seats in a particular Institute, there should be in this country no limitation of technical education because the country has just entered a new age of industrialisation and we find today that turning out more and more arts graduates of a t« become mere clerks in the low order Secretariat is no good. The whole system of education in the country has to be reoriented and given a technical bias.

THE DEPUTY CHAIRMAN: You may continue later. The House standi adjourned till 2.30 P.M.

The House then adjourned for lunch at one of the clock.

The House reassembled after lunch at halfpast two of the clock, the DEPUTY CHAIRMAN in the Chair. •

THE DEPUTY CHAIRMAN: Yes, Shri Arjun Arora, you may continue your speech. But I find there ia no Minister present.

SHRI ARJUN ARORA: Then, shall we meet after ten minutes, Madam?

THB DEPUTY CHAIRMAN: Yes. there is no other alternative except to meet after ten minutes. The House stands adjourned for ten minutes.

> The House then adjourned till forty minutes Past two of the clock.

The House reassembled at forty minutes past two of the clock, The DEPUTY CHAIRMAN in the Chair.

THE DEPUTY CHAIRMAN: I am sorry the Minister was not here at 2.30 P.M. This has happened a second time this session. Last time the Minister was not here and he apologised \*nd said he was busy in the other House. I do say to the Treasury Benches-and you can convey this to all your colleagues—that this House has its own dignity and prestige and what is due to it must be given by the Treasury Benches, by each one sitting on the Treasury Benches.

MINISTER OF **SCIENTIFIC** RESEARCH AND CULTURAL AFFAIRS (SHRI HUMAYUN KABIR): I am verv sorrv. Madam, and I apologise to the House for the unintentional inconvenience caused. The fact is, there was a slight difference between my watch and the clock here. I came exactly at 2:30 by m<sub>y</sub> watch but I was late by some three minutes.

THE DEPUTY CHAIRMAN: I do think the clock in this House should be followed.

SHRI HUMAYUN KABIR: agree, Madam, and I am very sorry. I am sure this will not happen again.

SHRI BHUPESH GUPTA (West Bengal): Madam, I am very sorry that the hon. Minister of Scientific Research should have a watch which does not give the right time.

THE DEPUTY CHAIRMAN: Anyway, it will be set right now, we shall have to wait and watch.

SHRI BHUPESH GUPTA: I would wish to present him with a watch which gives him the right time.

AN HON. MEMBER: From Russia?

SHRI BHUPESH GUPTA: If he pleads inability to produce one here.

SHRI ARJUN ARORA: Madam, I was stressing the point that the passage of this Bill will raise the status of an engineering college, but would not give the country greater facilities for technical education. There appears to be some sort of complacency in this Ministry as far as the seats in the engineering colleges are concerned. The other day the hon. Minister declared that he thinking of increasing wa» not technical number of seats the in I feel, Madam, that this is institutions. due to a lack of foresight and the Ministry does not appear to have a full idea of the pace of industrialisation that is taking place in the country and the need for technical men in the country-It will be proper for the Ministry to conduct a survey of the needs for engineers and technical people for meeting the requirements and demands of the the Ministry Fourth Plan period, because if rises late and begins to educate and train the engineers in the Fourth Plan, then, the Fourth Plan—it takes five years to get an engineering degree—the result would be that the requirements of the Fourth not be met. Even today, there is very demand for engineers, particularly for engineers trained in these Institutes. For that, of course, the credit must be given to the Government and to th^ hon. Minister, for industrialists with foresight contact the students in the final year of the college, especially in technical institutes like the one at Kharagpur. So that should give the Minister some idea of th« need for

enlarging the scope of technical education in the country. These four Institutes which into being-thanks to the have come Herculean efforts of this Ministry and thanks also to the foreign aid which they have been •able to get—are really very useful institutes. But a very interesting fact about these Institutes <s that one is built with British aid, another with American aid and the third with Soviet aid. It is perfectly all right for us, non-aligned people, to get aid without strings from wherever it is available. But once the aid is received, every effort should be made to make the technical institutes, Indian, institutes, these and they should be developed in a manner which will conform to our requirements. I am sorry to find, Madam, that this is not being done. Each Institute, wMch has been with the help of foreign aid, developed become an empire of~that is likely to country in India. That tendency must be uprooted. I am conscious of this tendency because one of the Institutes is situated at Kanpur, a place with which I keep a live contact. This Institute is financed by American help and I have publicly thanked the Americans for the help that they have given to this Instate. I do so again this should also think of now. for considering the technical institute at Kanpur is developing into a very useful institute. But what I find is that in the matter of recruitment of teachers, this Institute recognises only American degrees. Though it is not written in black and white that only American-trained teachers will be admitted, this is >a hard fact which cannot be ignored. Our young men who have British education or German education or education from any other country except America, who have if I may say, an un-American education, they are at a disadvantage in the matter of these appointments.

SHRI SANTOSH KUMAR BASU (West Bengal): TJn-American or non-American?

SHRI ARJUN ARORA: The Americans use the term "un-American".

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SHRI SANTOSH KUMAR BASU: But in a different sense.

SHRI ARJUN ARORA: So this sort of tendency to build up each Institute into an empire of the country which has given financial and technical aid for the establishing of that Institute must be checked

and uprooted. As I submitted, Madam, there is nothing in black and white, but if the Minister goes through the qualifications of the Indians who have been taken on the staff of the I.I.T., Kanpur, I am sure he will find that those with American education are the dominant people. That tendency is very dangerous and it is not likely to help the development of healthy trends in the country. "With these words, Madam, I support the Bill.

SHRI HUMAYUN KABIR: Madam Deputy Chairman, I am thankful to the House for the generous support extend to this Bill. The Bill is non-controversial in nature and I am sure the whole House is united in saying that facilities for technical education in this country should be expanded and improved. With reference to the various points raised, I would like to say that while this Biri is a very limited Bill-its major purpose is to see that the Delhi College of Engineering and Technology is elevated to the rank of a higher Institute of Technology, and we add \* fifth Institute to the four that are ■already existing—the debate has actually ranged over the entire field of technical education. Perhaps it was inevitable in the circumstances. I would, therefore, take this opportunity, Madam, to reply to some of the points of a general nature which have been raised.

My hon. friend, Shri Govindan Nair, made a very discursive speech and while his major purpose was to say that the entire attitude towards technical education should change, he

[Shri Humayun Kabir.] did not really indicate what exactly this change should be. Today there is great importance and emphasis placed on technical education and I am sure Shri Govindan Nair also desires that that emphasis should continue and I am sure he does not wish that that attitude should be changed by not giving it the same attention as before.

Then, he talked about complacency in this Ministry. I may assure him that there is no complacency. This point was also raised by the hon. Member who spoke just now. I may tell hon. Members that there is no sense of complacency, but there is the sense of realism which makes us survey the position to devise measures so that the development of technical education in the country may be in conformity wHh the requirements of the country, that it does not outstrip it too much and there is no problem the unemployment of technical ofpersonnel. I have always held that the supply of technical personnel may be slightly in excess, maybe ten per cent, or fifteen per cent, or at most twenty per cent, in excess of the country's requirements because that excess can always be absorbed by the developing economy of a fastly growing country like ours but if that excess is more than ten or fifteen or twenty per cent., there is a real danger that there may be unemployment of our technical personnel and 1hat would be a real tragedy for the country for more reasons than one, firstly, the amount spent for training one technical person is a considerable amount and it is very largely contributed by the community and the State not by the individual who tndergoes that training and secondly, it may lead to a sense of frustration as has been unfortunately the case in respect of higher education in the humanities and in the arts.

My hon. friend, Shri Nair, admitted that the proportion of money allot-

ted for technical education has been steadily increasing over the last three Plans. In the First Plan it was eleven per cent and it has gone up to 25 per cent, in the Third Plan. I d» not know what change he wants there. Does he want it to be reduced or expanded still faster? I am sure nobody in this House would dispute the claims of elementary education, secondary education and university education in pure science and humanities. I am sure, Madam, nobody in this House desires that more than 25 per cent, of the total Budget should be allotted only for higher technical education. Shri Nair also talked about children's education, women's education which were hardly relevant to the discussion of this Bill. Shri Nair wanted improvement in the quality of technical training but at the same time talked of reduction in the duration of the course and the use of factories. Now, Madam, if these steps are taken. I am sure it would lead to a deterioration in standards which I am sure nobody in this House would desire.

While Shri Nair wanted this expansion, at the same time he raised the point that there were some engineers still unemployed. I do not think it is true to say that a large number of engineers are unemployed and what my hon, friend, Shri Arjun Arora said just now,—that the students are approached in certain cases for employment even before they have finished their courses-indicates that there is no such danger at the moment. But it is certainly true that when a young person takes the degree, sometimes for three months or six months he may not be able to find suitable employment. We once enquired into the registration of degree holders in engineering in the Employment Exchanges and we found that the majority of them were people who had taken their degree a month or two ago and others were people who had already got employment but were looking for better employment.

My friend also referred to the unemployment of geologists and geo-physicists whidh is hardly relevant to this issue. This matter was discussed by me in a question before Parliament and I v. ish ta point out that only -a very small proportion of people are unemployed. Out of 2,558 post-graduates in geo-science, only fourteen were reported to be unemployed and about 150 were reported to be working in fields not connected with geoscience. This, I am sure, is not a very dismal picture. The great expansion which is taking place in the G.S.I, will be able to take care of all geologists and geo-scientists who are competent but we must also~Femember that there is the question of personal preference, there is the question of suitability. Therefore, it is not that everyone who takes a degree can necessarily be absorbed in thV G.S.I.

My friend, Mr. Nair, also referred to the need of improvement at the diploma level, at the degree level and at the post-graduate level. All these measures are being taken. At the diploma level, very recently, the course has been reoriented in order to give it a more practical bias. As a result of this, I am sure that the diploma-holders will be able to meet the requirements of industry more effectively and more expeditiously. At the degree level also, we have raised the standards and the five-year integrated course will, I am sure, lead to an improvement in the standards. We have, therefore, resisted the demand for reducing the duration of the course. At the post-graduate level, all these higher institutions are catering for that and another 30 centres for Dostgraduate studies and research in engineering and technology have been established in the country during the lastTive to six years.

I think, therefore, Madam,, the points raised by Mr. Nair may have general application but they were not relevant to the Bill and I do not think that they Show any picture which need disturb us. I would like to submit to the House, the progress of

technical education both'from the point of view of quantitative expansion and qualitative improvement is proceeding along right lines. Of course, there is always room for further improvement and that is why these various bodies are set up and one of the purposes of establishing these higher institutes of technology is to improve quality.

My friend, iBhri Bhargava, raised two or" three important points. The first point was the question of good teachers. I entirely agree with him that the quality of teachers is fundamental to any system of education. You may have any kind of syllabus and you may have any kind of equipment but if the teachers are not both able and dedicated, we can never get the best results. We have taken certain measures in order to attract better teachers and this House is aware that the pay scales have been considerably improved. I think my hon. friend, Mr. Sapru, mentioned that the pay scales in the Institutes of Technology should be improved and that the teachers should be given higher salaries. We have done it for all teachers not only in the Institute of Technology but in respect of all technological institutions throughout the country. I think I can say with some confidence that the scales are comparable to the highest scales which obtain in the Government of India. A young man can start at 410 rupees in a technical institution and if he is good enough, he can become the Director of one of the Institutes going up to Rs. 3,000. I think, Madam, starting at Rs. 410 and with various breaks going up to Rs. 2,500 or Rs. 3,000 is not an inadequate scale so far as India is concerned.

We have also taken steps for improving the quality of teachers by providing special teacher training programmes. Six hundred teachers have been given special training in the country and outside, *viz.*, in the United Kingdom, the United States of America, the U.S.S.R. and in West

[Shri Humayun Kabir.] Germany in the course of the last five or six years. At the moment, about 200 teachers are under training in the country itself. So, we are trying every possible method to improve the quality of teachers by providing better training facilities to teachers and attracting better type of students to post-graduate courses in engineering and technology by offering cent per cent, scholarship to any student accepted in the post-graduate classes in an engineering technological institution. He is given full scholarship which covers all his expenses. This, I think, will go some way in improving the shortage of teachers.

Then my friend, Mr. Bhargava, made special reference to the selections at Kanpur and he had two complaints to make. One was that the list of those, who were selected, was more or less known and the second was that some people, who had done well in B.Sc. or School Board examination or elsewhere, were not called for interview. My hon, friend probably knows that the selection for all the four Institutes and for the Delhi Institute is not based on the results of any examination conducted by anybody else but is based on a competitive examination held on an All-India basis and conducted by these Institutes jointly. There is no possibility in this competitive examination of any favouritism or partiality because the students remain anonymous, the examiners are anonymous and when the script comes, nobody knows from which student the script has come and it is only when the students are qualified that by referring back their names are discovered and they are called for interview.

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18,000 people sat for the examination; of them 2,807 qualified in this written examination and they were called for interview. Now when you have 1J590 places which have to be filled and 2,800 are called for interview, anybody can make an intelligent

guess as to who will be going in because it is also a fact that the selections are made basis of the on the competitive examination. The interview has only very The purpose of the limited purpose. interview is to select the courses which they may be allotted and the institutions to which they may go. And only if at the interview somebody proves grossly inadequate, or only if there are any defects or deficiencies which make one unsuitable for higher education, he will be thrown out but I can say that no such cases have occurred. The admissions have been strictly according to on the basis of the competitive examination. Therefore since the results are published, from the fact that these persons were interviewed and their merit position was known more or less, anybody can broadly say that these are the people who are going to be selected. There is nothing very much surprising if they had made an intelligent guess. They knew that they are right on the top and they are walking in on the basis of merit, because they have qualified in the competitive examination and have come very high up. This also disposes of the objection that somebody who had got good marks in the Board Examination or University Examination was not called. They may get as high marks as they like in any other examination but if they have not qualified in this particular competitive examination, they would not be called. If we went by the results of the Board Examination, they differed from State to State and even within a State university to university. differed from That is why we have devised this common competitive examination. So I can say with confidence that the admissions have been strictly on the basis of merit and merit alone.

SHRI M. P. BHARGAVA (Uttar Pradesh): On a point of information may I know the number of people who were to be selected at Kanpur and the number of people called for interview?

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SHRI HUMAYUN KABIR: I am giving that information also. Five hundred students were called tor interview at Kanpur of whom 466 actually appeared at the interview and out of the 466, 258 were offered admission at the Kanpur Institute. Some of them were offered admission at other Institutes as well. Two hundred and eight candidates accepted and joined the Institute at Kanpur and sixteen of them left afterwards so that 192 are still at the Institute. And as I said, the examination is held on a common basis. It was not conducted by the Kanpur Institute this year, if I remember right. It was conducted by the Kharagpur Institute two years ago and then the next year by the Bombay Institute. This year it was either the Bombay Institute or the Madras Institute which conducted the examination. Kanpur's turn will come later so that Kanpur was only interviewing candidates who had qualified themselves on the results of an examination conducted by another Institute. I hope this will satisfy my hon. friend and I can assure him that it is our endeavour to see that in these Institutes, merit and merit alone is the governing consideration, that candidates are selected purely on merit. These were, I think, the two major points which he made.

Then my hon. friend Mr. Chettiar raised two or three points. He talked about the number of graduates and diploma-holders. I have also submitted to this House that we ought to expand the facilities at the diploma level at a faster rate than at the degree level. We have today in India a disproportionate number of degree-holders compared to diploma-holders. To some extent this has been rectified in the last five years but only slightly. Even today, the number of diploma-holders is only about twice the number of degree-holders whereas the proportion should really be about four to one.

Then my friend Mr. Chettiar referred to the full utilisation of equip-

ment and suggested that there may be shifts in certain colleges. The position today in many of the institutions is that without having shifts, institutions are practically working in the manner of a shift. Admissions have been expanded greatly. In many cases the admissions in the last two years have been increased by 50 to 100 per cent. Institutions which were admitting 120 students before are today admitting 180 to 240 and in some cases they are admitting as many as 300 and there are one or two institutions where the admissions are 350. Now, obviously this has put a great strain on the laboratories and workshops. These laboratories and workshops are now working more than ten hours a day and we certainly cannot work them longer without a very much greater supply of teachers.

Our greatest difficulty is in th\* shortage of teachers. Even today, in spite of our best efforts the shortage of teachers has not been fully met and that is why we cannot expand any further or allow any more admissions. I agree with my friend Mr. Arora when he said that there should be expansion of technical education but the expansion should also be related to our needs. It is because the estimated requirement\* have been met that we are going somewhat slow. Even then we are not suspending development. The Third Plan target for admissions in 1966 was 20,000 for engineering courses at the degree level. This year we have almost reached that target. We gave approval for over 20,000 admissions in the different institutions in this very year and we are hoping to expand by another two to three thousand in the course of the next two years. I would not like it to expand at a faster rate than that, especially when the expansion at the diploma level has not kept pace. We admitted this year over 30,000 in Polytechnics with an admission of 20,000 at the degree level but the admissions at the diploma level ought to have been at least 40,000, if not more,

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Mr. Chettiar also referred to the equipment shortage and wanted that this should be made good as quickly as possible. It is our endeavour to do so. Already about 70 per cent, of the equipment for polytechnics can be manufactured in the country and are available here. In the case of the engineering colleges, about 50 per cent, can be available within the country but there are certain types of equipment in electronics, in electrical engineering, in heat engineering and in ancillary subjects, which have to be imported from abroad and because of shortage of foreign exchange there have been difficulties in the past. Very recently we considered this matter and a conference of scientists and educationists, which was held in August, has made a recommendation that a special quota should be allotted for the import of equipment for scientific and technical institutions. We have estimated that for India as a whole, the requirement of foreign exchange per year for equipment for technical institutions is only about Rs. 2 crores a year. We have now moved that this sum of Rs. 2 crores should be earmarked and I have every hope that this demand will be met. When that is done and when we are able to allot to every institution a quota of foreign exchange without any strings, without any pre-conditions, the shortage of equipment can be very largely met.

My friend Mr. Khandekar said that there is no planning for employment of technical men universities give and the degrees indiscriminately. Sir, I do not think it would be fair to make that sweeping charge against universities. There may occasionally be cases where a person who we think is not fully qualified might get a degree or somebody who We think is fully qualified might not be given a degree. These are matters of differences in judgement and we have to abide by the decision of the universities. Unless we respect the universities, respect their autonomy as well as their

authority to give degrees as they like, there is the risk that we will get into more difficulties. Certainly I think the House will agree that the Government or the Ministry—and I respectfully submit also the Parliament-should not enter into this academic field of the giving of degrees. This should be left entirely to the universities.

Regarding Mr. Khandekar's point that there is no planning, I have tried to submit before the House that it is because we are conscious of the planning that we are developing at a definite controlled rate, neither faster nor slower. We certainly are not slower than what the planning Commission had indicated as the requirements of the country but we do not wish to go very much faster either. I have always tried to go a little beyond what the Planning Commission had asked for. We did so in the Second Plan and we are going to do so in the Third Plan but we should not go very much beyond, because that will upset the general pattern of planning in the country.

My hon. friend, Mr. Sapru, ranged over a vast field and he raised also one or two specific questions. His first grievance seems to be that this Delhi College of Engineering Technology is being taken outside the Delhi University and is becoming an institution which would give degrees in its own right. The reason for that is very simple. The higher technological institutes are developing a life of their own. They are, for all practical purposes, universities and they are not single-faculty universities as my hon. friend seems to fear because, take Kharagpur, take Bombay, take Kanpur, take Madras, everywhere there is provision for the teaching of humanities.

In Kharagpur degrees are given in the pure sciences. In all these Institutes, this provision will be made in due course so that they will not be single-faculty universities, but they will be all round institutions. Because they are not attached to any other institution, because they have

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their own autonomy, they will be free to develop in a manner which would not be possible if they had come under the control of some body other than their own. This is the major reason why these Institutes are being developed as autonomous institutions. I may also add that the collaboration and assistance we have received from friendly countries has been partly conditional on this fact that each institution has the independence to develop in its own manner and • develop its own standards.

My hon, friend, Shri Arora, talked of empires. I can assure him that there is no question of empires here. It is only a question of academic freedom. While we are grateful to all the countries which have given us aid, we have also made it clear that the development of these institutions will be according to the principles laid down by this country. We did that in the case of the Soviet institution. They had a different idea of a higher Institute of Technology. They had originally suggested that it should be a single-faculty institute, not single-faculty in the sense which my friend, Shri Sapru, mentioned, but single-faculty in the sense that they have in their country a higher institute for automobile engineering, they have a higher institute for chemical engineering, they have a higher institute for aeronautical engineering. They had at one stage suggested that we might also specialise in that very narrow way, but we did not agree. We persuaded them to see that our pattern of broad technical education, covering all the disciplines of technology and some of the pure sciences, may be a better pattern.

And I was very happy to find, when I was in Moscow last time, about two and a half months ago,that some of the Soviet teachers, who 'we been here and who are distin- ished scientists and distinguished demicians, have seen the advan- is of our system. Now, there is ggestion that in the Soviet Union they may have one or two in-

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stitutions which will be more or less like the institution which is developing in Bombay. I am sure the same thing will apply to Kanpur. My hon. friend, Shri Arora, said that it is being developed according to the American pattern. I have discussed with some of the American teachers who have themselves confessed that by being in Kanpur for a year or a year and a half they have seen new points of view, new projects, new methods which they propose to introduce in their institutions when they go back to America. In all these matters it has always to be a two-way traffic. It is always mutual. If we benefit by American experience, then the American teachers benefit by Indian experience. Therefore, there is not the least chance of any empire building. I will however, look into the question which he has raised, that all the people have American degrees. But I think he forgot some of the most important members of the staff. As far as I recollect, the Director has no American degree at all. So far as I remember, the Deputy Director, if there is any, has no American degree. In many cases the selections are made not by these American teachers. .

SHRI ARJUN ARORA: The Director and Deputy Director were appointed before the Americans came.

SHRI HUMAYUN KABIR: But in any future appointments, the two most important persons will be the Director and the Deputy Director. In fact, generally according to our pattern, the chairman of the selection committee for professors and senior appointments is the Director, so that he will have a decisive voice. There will also be a few experts from other institutions as well. In fact, these four Institutes are, as my hon, friend, Shri Arora, said, a very happy experiment. On the soil of India four different patterns are being worked out, but these institutions cannot function as purely Soviet or purely West German or purely American institutions. They have

[Shri Humayun Kabir.] been influenced by Indian traditions and Indian experience and the Indian teachers who are participating in them. The result may be the evolution of a type of technical training which would be suitable not only for our country but which may also be followed with advantage by other countries as well. This, I think, answers both the questions which he raised.

My hon. friend, Shri Sapru, then talked about providing jobs for engineers. I think my hon. friend, Shri Arora, gave an adequate reply to it. There is no question of unemployment among engineers, especially qualified engineers. As far as I can foresee, for at least the next ten or twenty years we can take all the engineers who are being produced. We shall, of course, be expanding facilities for technical education. Industrial development in this country also goes apace.

Then, my friend, Shri Sapru, referred to service in foreign countries. I have told this House repeatedly that the number of Indian scientists who are working abroad is almost infinitesimal, only about two per cent, of those who receive foreign training and come back to India. Twro per cent, is a very small number, but there is a certain circulating number, rotating number, who go for two years, three years or four years and they come back to this country.

We also, under various systems, exchange our teachers who go to foreign countries as visiting professors. This is entirely to the advantage of this country and undoubtedly it is of advantage to the teaching profession. I do not think that any serious problem has so far arisen with regard to the steps which we are taking to expand facilities here, to improve salary scales and to have better methods of training. Not only that. We have recently taken a step which I am sure the House will

approve. We have taken the decision that anyone with a certain specified qualification and above, who has received training in India or abroad, will be taken into the scientists' pool. There will be no limit to the number in the scientists' pool in future. We started with 100 in 1958. It went up to 500 early this year. Now we have wiped out the limitation on number. Anyone With the requisite qualification will be taken into the scientists' pool and will be maintained by the State. We have taken a further decision that we shall see to it that within six months, any one who is in the scientists' pool is given employment, some kind of permanent or sem-permanent employment in some agency.

SHRI SANTOSH KUMAR BASU: It is very good.

SHRI HUMAYUN KABIR: So, these steps will certainly attract a large number of people back to the country. I would also like to make it clear that it is to our advantage if a small percentage remains outside because they will bring credit and glory to this country. We have men like Prof. Chandrasekhar, whom many people regard as number one in astro-physics. If he were in India he certainly would not have attained that position. We are not in a position today where we can give him the kind of facilities, where we can give him the kind of equipment, where we can give him funds which are essential for the highest type of research in astro-physics, the subject in which Prof. Chandrasekhar has specialised. I give only one example, but there are others also like that. Of course, we want that they should corne back and we should have continual interflow, whereby our scientists should go abroad for sh periods. The bulk of our scien' must serve the country. That is aim and I am sure that that aim be satisfied, especially as com improve in this country.

Shri Sapru referred in that connection to the jealousy of senior men and wanted that there should be greater co-operation. I am sure everybody in this House will agree with him. But then, if any one is jealous, a statement from me or a statement from my hon, friend, Shri Sapru, is not going to remove that jealousy. Jealousy can only be removed when there is a better scientific climate in this country, when there is a real appraisal of work. Nowadays it very often happens that we have in a certain field a very small number of scientists. Because there is a small number, they create a kind of monopolistic position and they cling to that advantage. They want to take advantage of their position. As the scientific world expands and as the number of scientists increases, this position will fast disappear. I must also say in fairness to the senior scientists that there are many senior scientists who have given of their best to the students. It is not true to say that all -senior men are jealous of their juniors. There are perhaps occasionally black sheep which you will find in any community anywhere in the world. But by and large the senior scientists do help and do offer co-operation to junior scientists.

Shri Sapru also referred to the question of more institutions. As I have mentioned, we have expanded at a very rapid rate. From, I think, about 40 institutions or so ten years ago, the number of engineering colleges today is well over 100. The number of polytechnics also, I think, has gone up. It was less than—I forget the exact number—67 or 70. Today it is over 230.

The admissions also have expanded tremendously—as I mentioned last time, from 6,000 to 20,000 in the degree colleges in the last six years, from about 10,000 to over 30,000 at the diploma level in the last six years. We do not want to establish more institutions till we are sure of the equipment position, till we are sure of the position about teachers. These

are the two bottlenecks. We must have teachers. Until we get an adequate number of qualified and dedicated teachers, the expansion may not help but it may become a cause of concern.

He also spoke about Uttar Pradesh, but about that I do not propose to make any remarks because the Delhi Institute is not in Uttar Pradesh. In any case, this Bill has hardly any relevance to the difficulties in which he finds himself in Uttar Pradesh.

My friend, Shri Santokh Singh, wanted that better salaries should be paid to the Delhi Institute. I do not agree.  $A_s$  I have said earlier, we want to improve salaries throughout the country, and we have taken certain measures in that direction. I certainly do not want that there should  $b_e$  any kind of gross differences in the salary structure of teachers in technical institutions. I would also wish that  $w_e$  can extend these better salaries to all teachers, not only teachers in technical institutions but teachers in universities and colleges as well so that the level of higher education in the country can be raised.

I think it was Shri Sapru who wanted that there should be some institutions in the South. There are already. The Madras Institute is certainly not in the North, and in addition, we have established the regional colleges which are also being developed with assistance from friendly countries abroad and the United Nations. The Warangal College is being developed with the help of the United Nations Special Fund. The Suratka College in Mysore is being developed with Canadian assistance. These 15 regional colleges which we have planned, of which w; have already established 11, will all be developed with assistance from the United Nations Fund to a higher level so that the facilities for higher technical education will be spread evenly throughout the country. I think I may also remind the House

[Shri Hu-mayun Kabir.]

that in 1958 there were a number of States in India where there was not a single Engineering College. Today there is no State in India where there is not at least one engineering college. Assam and Orissa have each two engineering colleges as against no college at all. Kashmir has also an engineering college and a regional engineering college at that which ought to be developed according to the pattern which I have just mentioned.

Then Mr. Sapru talked about Scheduled Caste and Schedule Tribe students. I would submit to the House that I am not behind anyone in giving every possible facility to Scheduled Caste and Scheduled Tribe students, and we have taken special measures for that. They are given a 10 per cent, concession in these competitive examinations. In other words, whatever marks they get, 10 per cent, of that is added to them before they are equated with the students from other classes, and a fairly large number have got in, though not as many as we would wish. What is even more encouraging, once they get in they are able to hold their own with students from other communities. In Kharagpur, a special experiment has been made by giving them a supplementary course. The result is that some of these Scheduled Caste and Scheduled Tribe students are doing very well indeed

Then Shri Sapru talked about third class graduates.

AN HON. MEMBER: What about backward classes?

SHRI HUMAYUN KABIR: Backward classes do not get the same privilege. In fact, it is very difficult to define backward classes. Once it has been defined in terms of economic competence as seems to be the tendency today, we shall also do something in that direction. But at the moment we are proceeding by what the Constitution has provided, that is

the Scheduled Castes and Scheduled Tribes for whom special privileges are given.

Shri Santokh Singh also wanted that 25 per cent, of the seats in the Indian Institute of Technology at Delhi should be reserved for Delhi students. I regret that I cannot accept that. In the Indian Institutes there is no reservation for anyone. We have reservation in the regional engineering colleges, We have reservalion in the local engineering colleges. There is in Delhi itself aiyrther engineering college where naturally the majority of students are from Delhi. I think it will please my hon, friend to hear that not only in the Delhi Institute, but in the other Institutes also Delhi supplies a very big proportion of students. I was looking at the figures the other day, and if my memory does not fail me, I think both at Kharagpur and Bombay, perhaps the single largest quota outside the State where these two are located was from Delhi. In fact, Delhi students are getting quite a reasonable and perhaps more than their due share ill terms of population. In any case, there will be no reservation in any Indian Institute of Technology for the students of any particular State, because then they would cease to De Indian Institutes of Technology. Then it would be Delhi Institute of Technology, Kanpur Institute of Technology, and so on.

Shri Santokh Singh also referred to foreign service. I have already disposed of that.

Shri Sapru and Shri Santokh Singh wanted that Members of Parliament should be on the Governing Body. The Governing Body has already been approved by Parliament because the Bill was passed about two years ago, and I do not think, Sir, we need make any changes now. If any hon. Member of Parliament comes as a Member of Parliament, it would not be so desirable in these academic institutions, but I shall be most happy if some hon.

Members of Parliament will come there in individual capacity as great educationists, as scientists, as technologists, and I am sure that in Parliament there is talent of every type and all this talent will be reflected. I therefore regret that I cannot accept the suggestion. In fact, I cannot do so even if I wished because that is not a subject for discussion today. The governing bodies have already been approved. Shri Sapru had complained that the Bill does not go into the details. That is because he did not care to read the Bill. If he had read the Bill, he would have found that this was only an amendment of the Indian Institute of Technology Act of 1961, and the governing bodies have already been provided there.

Then my friend, Mr. Santokh Singh, talked about fundamental research. I was rather disturbed and surprised at his aversion to fundamental search. I think it would be a most unwise policy for any country in the world to give up fundamental research altogether. (Interruption.) If my hon, friend will look up the report of his speech, I have not seen it but my recollection is that he was saying that for the time being we need not pay any attention to fundamental research at all, that we must concentrate on applied research. We should certainly pay attention to applied research. In all the National Laboratories, in what we call the cooperative research laboratories established by industries, in some of the projects in the universities, applied research is being carried on. But it will be a bad day for this country if we neglect fundamental research. In fact, applied research cannot live unless fundamental research is active.

My friend, Mr. Ghani—I am grateful to him for his very kind words— did not speak generally about this Bill excepting only referring to some of the glories of ancient India. I hope he will agree with me that what we want today is the glories of modern

India. Unless in modren India we can have scientific achievements and scientific developments which can at least compare to some extent to the glories of ancient India, that glory of ancient India becomes our condemnation.

SHRI ARJUN ARORA: He mentioned the glories of Punjab, of Pratap Singh Kairon.

†[श्री ग्रब्दुल गनी : नहीं जनाव. मैंने डाक्टर मभामा का जिक किया था, कैरों का ही क्यों कहते हो ?]

SHRI HUMAYUN KABIR: In any case, I am sure that my friend, Mr. Ghani, will agree that what we want really today is that our younger people should be so trained that they can become another Arjuna, another Drona, another Ekalavya and heroes of that type.

†(श्री अब्बुल गनी: इसीलिए तो मैंने आपकी तारीफ की कि आप बहुत अच्छा बिल लायें हैं।]

SHRI HUMAYUN KABIR I am very grateful to you. I have already-said that I am very grateful to the hon. Member.

The last speaker was Shri Arora. He came back to one point again and again, whether this giving of a higher status to the Delhi Institute would

f | Hindi transliteration.

[Shri Humayun Kabir.] mark improvement or expansion in technical education. I think there is some misunderstanding in his mind on this point. Higher status is a result of expansion. It is because it is going to develop into a postgraduate institution. Originally when it had been visualised as a regional engineering college, the emphasis would have been on under-graduate teaching. Today there is equal emphasis on undergraduate teaching, post-graduate teaching and research. We are getting highly qualified teachers from abroad, and we providing for research. All these will give a status because of higher utility, of higher productivity in terms of scientific research and scientific training. He also spoke about giving a greater bias to technical education and that there should be no limitation to technical education. I would agree with him that there should be a greater bias towards technical education, but that bias should start at a lower level. Unless introduce a degree of we can science and technology from\ almost the elementary stage and develop considerably at the secondary stage, we cannot give a technical bias to education which, I am sure, all Members of this House want. We are considering that and we hope that it may be possible to devise measures which will bring about a much larger content science and technology at the secondary and even at the elementary level. But I would not agree with him that there should be no limitation. There must be some limitation. If I place that limitation at 20,000, he may carry it to 22,000; if I place it at 23,000 in 1966, he may put it at 25,000. But I am sure that he will agree with me that it would be wrong if in place of 20,000, he made it 45,000 or 1,00,000, because there is a certain rate of development in our country which we must never forget.

I would end by saying that I am grateful to the Members of this House, and I would also like to express, on

my behalf and on behalf of all the Members of the House, our appreciation of the generous offer made by the United Kingdom Government and the British industries who have offered to help this institution to develop to the highest standards by offering the services of some of their finest teachers and by offering equipment and material of a very high quality.

THE DEPUTY CHAIRMAN: The question is:

"That the Bill to amend the Institutes of Technology Act, 1961, as passed by the Lok Sabha, be taken into consideration."

The motion was adopted.

THE DEPUTY CHAIRMAN: Wo shall now take up the clause by clause consideration of the Bill.

Clauses 2 to 7 were added to the Bill. Clause 1, the Enacting Formula and the Title were added to the Bill.

SHRI HUMAYUN KABIR: Madam, I move:

"That the Bill be passed."

The question was proposed.

SHRI DAHYABHAI V. PATEL (Gujarat): Madam, this House is grateful to the Minister for the exposition that he has given in his speech in reply. Perhaps, that will enable me to eliminate some of the points that I wanted to raise in this discussion. I think I was well advised to wait to hear him first and then offer the few remarks that I liked to make.

Certainly we are grateful to the friendly countries that have offered us help in proceeding ahead with the establishment of these Technological Institutes. We are far behind the modern world in spite of the progress that we have made in the teaching of science and technology, and it is good to see that Government is alive— I must also say that the people are

also alive—to the situation as perhaps the hon. Minister knows. At many places people themselves have come forward to build colleges and polytechnics but under the conditions in which we live today, under the high burden of taxation, the sources of philanthropy and charity have very nearly dried up and people • find it difficult to raise funds on their own. On the other hand, we are faced with the difficulty of high prices in every thing, whether it is land, whether it is building or whether it is staff. And when I mention staff, I am not at all against—I am all favour—raising the standards and emoluments of the teaching staff, particularly in the technical institutions. It is well known that industry is attracting the best people. Why? It is because it is able to offer better terms. I am happy to learn from the Minister

"' fraction of our Indian scientists

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 $+_{a,i}Uy$ - I know quite a number of  $\circ$  i and friends whose sons have? su \*ay abroad, to America and 1 sel\* r initially, to study, have done 504 R have settled down there be-e opportunity not only of but of life there afterwards emoluments and the remuneration that they get there are far superior to anything that we could offer them here. Some of them have formed ties there. I know of some who have come back to India and have gone away disappointed whenever they could; some of them have not been able to go back because they have lost their old jobs and they are feeling so sorry that they up their jobs abroad and came to this country. There are a number of them. I am very glad to hear the figure that the hon. Minister has given. It is less than 2 per cent. But why should there be that 2 per cent, which feels like that? And that 2 per cent, will always be before the minds of the students who do well and pass out abroad that, here are these people. Why are they not going back? They have madei a name for themselves. They are doing well here. Some of

them are people who have come back to this country and have gone back. That is the situation that needs to be remedied. I do not say that it can be done in a day. But that is a situation which the Government of this country, the Ministry dealing with technical education, must apply their minds to. I am glad that we have, according to the Minister, over 100 engineering colleges. Really, that is what we need. But how are they faring?

SHRI P. K. KUMARAN (Andhra Pradesh): The P-Form does not apply to the people who went back?

SHRI DAHYABHAI V. PATEL: I do not know what my friend refers to. I am saying that I am glad that there are one hundred engineering colleges today and we are getting so many more of technical institutions. But what is their state? Dr. Sapru was worried about caste distinctions and whether there were any disabilities. But I am finding that there is going to be a caste distinction between these engineering colleges. Some are going to be called the Indian Institutes, some are going to be provincial Institutes. I am not very happy over the distinction made or the different caste mark that is being given to them. The Minister very rightly said that education should be free, without any interference, to go its own way and to progress in its own way. But if the support that they get is different, is conditioned, can we say that they are free to go their own way? I would like to know from the hon. Minister whether all the technical institutions under the concept of All-India Institutes are going to be residential colleges, whether there is going to be enough hostel accommodation available in all of them because I find that in most of the State institutions, the engineering colleges as we called them, there is such a dearth of hostel accommodation. I wish the hon. Minister visited one of the oldest engineering colleges in India, the Poona College and saw what is the fate of the students there in the hostel. The

[Shri Dahvabhai V. Patel.J room which is meant for one student is occupied by three today. There is hardly standing room when they put three cots and there is not enough room for three tables. So, they put two tables in the corner left and manage by turns. Now, how can the students concentrate on their studies in this manner? And this, for the students who get admission into the Poona College which is supposed to be one of the best and the oldest institutions. I hope that something like this is not going to happen in all these institutions. And while I like to see the progress of technical education I do not like this caste distinction, namely, while some type of institutions are going to get everything, they are going to get full grants for residential universities and residential colleges, there are going to be institutions like the old engineering colleges which are going to be starved, or will not have enough grants to expand the primary facilities like hostel accommodation. A large number of students come from various places outside. There may be a small fraction of students who stay in the town. But it has always been found that in technical education, engineering colleges particularly, there is lot of practical work to be done which needs the students to stay on the premises or somewhere nearby all the time. We have, for instance. the example of Ahmedabad which has got an engineering college where a large number of students come from the town. It takes them an hour to come to the college from their places and an hour to go back. How much of their valuable time is taken up in coming and going. The same would toply to Bombay where we have got <wo engineering colleges. I am glad the Bhabha Institute there is practically a residential institute and it has acquired a good reputation by Therefore, Madam, this caste distinction between the two does not make me very happy. Why can we not have engineering colleges or technical institutions or whatever you call them

of a high order everywhere? Why should there be disparity between the two, while one is starved for grants the other gets everything? That does not make me very happy, Madam.

The assurance that the hon. Minister has given us that every State has now an engineering college or technical institution is most welcome. I am. not looking at things from a provincial point of view. But I would like to say that there should be some relation to the location of the institution and the need of the area. Now, for instance, there is this large textile industry in Bombay. We have an Institute at Bombay which ca:ers primarily to the textile need. That is a welcome feature. We have oil and natural gas in Gujarat. But we have an institution teaching this subject in the North. When the Minister gets the opportunity of starting new institutions, he might bear this in mind particularly looking to the pace of expansion of the oil industry in Gujarat perhaps. So either, as a result the existing institutions may be upgraded or a new institution may be started according to our needs, according to the resources available. I am giving this only as an example. But this can be further multiplied because of the rapid strides that we are making in industrialisation.

In the North we have the coal-mines and the industry connected with coal. We have got the industries connected with steel in the North.

SHRI A. D. MANI (Madhya Pradesh): We have got Ministers also.

SHRI DAHYABHAI V. PATEL: But I do not think they come within the purview of the technical colleges. I am not referring to them. My suggestion is that in the building up of these institutions and the establishment of new institutions this factor may be taken into account.

The Minister referred to automobile engineering. In the restricted scheme of things in this country, automobile-

production is going to be only in three places. Institutions teaching automobile engineering and emphasising automobile industry should necessarily be nearer these areas. That is my suggestion. And particularly, the suggestion that admissions to these colleges should be on an all-India basis is a welcome suggestion.

I am glad, Madam, that selection is by competitive examination. But I am afraid, the other side is not something that can be just passed off. It is well known that there is a class of students that always stand very high academically. They have always been in the first place but in the practical life, it is not necessarily the number one student that comes out better. May I say, it is more so with regard to technical colleges? Is not that the experience with regard to technical colleges? It is not necessarily the very top man or the very first class man that is the/best. He may be a good teacher. Usually he will make a very good teacher. But,in practical life, in catering to the needs of the country, in helping to develop and build the country it is not necessarily the number one or the first class alone. I am sorry I have no remedy myself to suggest.

SHRI JOSEPH MATHEN (Kerala): What is your suggestion?

SHRI DAHYABHAI V. PATEL; -That is what I am saying. I have no remedy to suggest. But that is something that we have to face in life. It may be that for a certain reason a student has missed the first class. There may be some mishap in the family, he may be worried, he may be poor, his circumstances may not be good. And to my mind, it is a pity that a promising student *is* denied a good chance just for this reason. But, as I said, I have no remedy to suggest. I am sorry this is perhaps one of the facts of life that we have to face and I mentioned it because it just came to my mind.

Madam, while one does feel happy at the progress of technical education, I am not very much inclined to say or feel happy >at the restrictions that the Minister says we will have to put up with. Perhaps our resources are such that we cannot go faster. I may reluctantly agree, but I do not feel at all happy that we are going to restrict the number of admissions either to the engineering colleges or to the polytechnics or to these all-India institutions, and I would request the Minister not to make any hard and fast rule that this is going to be the pattern for the next few years. I am always an optimist and I hope that it will be possible for us to revise the-present figures and make room for more students who would like to go that way because it is only by having more scientists, more engineers, more technical men that this country will be able to progress. Thank you.

SHRI AKBAR ALI KHAN: Madam Deputy Chairman, so far as this Bill is concerned, I think quite rightly this House has unanimously welcomed this measure, and I am sure the House will join me to express our thanks to the United Kingdom and those who have helped us.

Madam, this idea of the Indian Institute of Technology, if I may be permitted to say so, is a very significant advance on the pattern of colleges or the regional institutions that we used to have in this country. The very object of this institute, which is the fifth one, is, if I understand rightly, to bring our scientific research, our technical research in line with the progress of the country in the field of economics and industry. The very object is that it should be a national institute where all people from all parts gather. With all respect that I have for my esteemed friend, Dr. Sapru, I would say that in these institutes there should be no distinction, no reservation, except on merit. So far as my friend, Mr. Dahyabhai Patel's observation is concerned, regarding students who are brilliant

[Shri Akbar AH Khan.] but fail to get highest marks in the examination, it may be that some unfortunate students who may be good in other ways are not able to get admission for this reason but are you going, for the sake of such exceptional cases, to come down from the established principle that merit-according to marks-should count? I represent my State of Andhra Pradesh in the Institute of Technology of Madras. I have something to do with polytechnics. I can tell you that so far as our institutions of technical education are concerned, starting with certificate course, going to diploma, degree and to research institute, this establishment of the Institute of Technology with, the help and advice of friendly countries is a significant advance in our pattern of technical education they all strictly observe the pr-nciple of admission according to the marks and that is the best method of admission. I may submit that at present the difficulty is not only with foreign exchange but also with the right sort of personnel. The establishment of these institutes with the co-operation of friendly countries has served us in both ways. It has given us equipment, thus helping us in the foreign exchange problem and it has also helped us by giving personnel which was not available in our country but I entirely agree that the professors, those lecturers that are there from the other countries, whether from Germany or the U.S.A. or the U.K. or Soviet Russia, should be there as advisers and instructors and they should have a plan that within the course of 5 or 10 years the people here will be so trained and educated that there will be no need to have the foreign professors as lecturers as far as possible.

I am sure the Education Ministry will bear this in mind when dealing with these institutes, that we do want their help—my experience is that they are very helpful in all these institutes—but it should be our earnest effort that our people should take up their places so that our needs, our developments and the plan for modernising India may be fully met with our own people.

Yesterday in reply to my supplementary question, the hon. Minister was pleased to say something in connection with the students who do not get admission on the side of humanities and much more so on the side of technical education in the universities and in other institutions. Now, what are these young people to do? It is true that in other countries of the world, so many students do not go for universities. He is perfectly right but what will our students do after they complete their matriculation? I submit that it is a challenge to our Education Ministry and, if I may say so, to the Government and it has to be met and he has promised on the floor of this House that it is receiving the consideration of the Government and his Ministry. I hooe effective steps will be taken in this direction. I think earlier measures are to be taken to see what are our requirements and needs, what are the developments that we envisage and we should try to bring our education in conformity with those requirements and pattern. It is only then that our educational system will be considered to be a system that fits in with modern conditions of the word. Otherwise, I feel this matter is as serious as the invasion of our country when thousands of students are educated but do not find the right place to serveserious situation may arise in the country.

In this connection may I say that so far as the certificate course is concerned, I speak subject to correction, it is being manned by his Ministry as well as by the Labour Ministry? There is a lot of scope in all the States—and I can say in my State—to have any number of these certificate courses where not even the condition of matriculation is there but a lot of technical, practical training is being given. If these institutions

are properly managed, certainly these students would like to go to them. For instance, in the Polytechnic with which I am connected we had to take 120 students. This year we have increased it to 180 but there were 900 applications and we have rejected 700. What I feel is that this matter of increasing technical institutions has to be given the top-most priority. I do not say increase it without any planning but certainly I feel that in the lower grades ther, is great scope, as admitted by the Minister. The facilities of technical education should be considerably increased if our development requirement, if our industrial progress, has to be met properly apart from the question of unemployment. \*• '

Now, so far as the emergency measure is concerned, at least I feel that in view of this new order to shorten the course, the experience is that the students were required to attend classes during their vacation, but among those students more than 10 per cent, have not attended with the result that the courses have to be completed within the short period that is at their disposal. I feel the standard is bound to go down. I think the Ministry will devote some thought to this problem and see that the order passed on account of the emergency to shorten the period of education is reconsidered.

I am very happy that the scale of pay of all the staff in the Polytechnics, in the colleges, in the Institutes, has been enhanced and I congratulate the Minister for the step that he has taken in this matter because without this it was difficult to get good personnel for the Institutes but at the same time I have some difficulty so far as the private institutions are concerns d. The Government of India have promised that for five years they will pa<sub>v</sub> the increased salary. What will happen after 5 years? It would be difficult for the private institutions to

meet these enhanced scales unless the Government of India or the State Government comes to their rescue. This is also a matter which deserves his consideration. Similarly, certain instructions have been given in regard to NX.C. and no expenditure has been provided for. All these are little things but! do hope that these matters will also receive his consideration.

It is about 8 years back when the Madras institute of Technology was being established, that a deputation from Hyderabad had waited on Mau-lana Azad and recently also the Andhra Pradesh Government has drawn the attention of the Minister that LIT. should be established at Hyderabad. The pattern of this Institute is that some special knowledge will be given in each Institute situated in different places. So far as the food problem is concerned, so far as the irrigation and power is concerned, I submit my State comes first in the whole of India.

Is it not necessary to have an Institute of Technology there where special efforts may  $b_e$  made to think out and devise and to make researches, fundamental research and also applied research, so far  $a_s$  these problems of irrigation and power are concerned? So I do hope that something will be done. Of course, I cannot put myself in competition with Delhi. I welcome this measure and I am very happy that Delhi also is having this Institute of Technology where we ctn train engineers of a very high ordei and with minds fitted for research work.

#### 4 P.M.

I would like to say that I join the other hon. Members- in congratulating those concerned, and in this connection I would say not only the hon. Minister but Prof. Thacker, and Shri Chandiramani and Shri Chanderkant and other friends, have done a very

[Shri Akbar AU Khan.]

good job and on behalf of Parliament, I would pay a tribute to them. I think but for the imagination that they have shown, the efficiency that they have displayed with a sort of desire to see that they should help the cause of education, mose of these schemes would not have made the progress that they have made today.

With these words I support this measure and I hope the object with which these Institutes are established would be fulfilled in the matter of research and in the matter of designing and in the matter of adding something to the knowledge of the world, and that the hopes that the country has in these Institutes will be fulfilled. Thank you.

श्री राम सहाय (मध्य प्रदेश ) : उप-सभापति महोदया, इस बिल का मैं भी हार्दिक समर्थन करता हुं। इसके सिलसिले में कुछ आपत्तियां उठाई गई हैं और इन में से एक ग्रापत्ति यह उठाई गई है कि देहली कालेज को इन्स्टीट्यूट करार देने से क्या मतलब है और इसे देहली यनिवर्सिटी के नयों नहीं रखा जाता। सम्बन्ध में निवेदन हैं कि इस कालेज को नेशनल इम्पार्टेंस देने के लिये हीतो इसको इस एक्ट की परव्यु में लाया गया है ग्रौर इसके बाद यः इंस्टीटयट खद एक युनिवसिटी के रूप में बन जायगा ग्रीर इसका प्रबन्ध जो इसकी खद की संस्था होगी उसके द्वारा संचालित होगा श्रीर यह बिल्कल एक अलग संस्था के रूप में अलग तरीके पर काम करेगा और इसके हकक जो हैं वे एक ग्रलग तरीके पर होंगे। इस तरह से में समझता हूं कि इसका एडिमिनिस्टेशन भौर इसका एजुकेशन बहुत अच्छा हो जायगा भौर जब कि खास तौर पर इसके लिये हमें विदेशों से सहायता मिल रही है तब मैं समझता हुं कि यह एक बहुत अच्छा इंस्टीट्युशन बनेगा ।

सिलसिले बातें गई कर्ती यहां टैक्नीकल एज्केशन के बारे में जैसी तरक्की होनी चाहिये वैसी तरक्की नहीं हुई है। इस सम्बन्ध में मेरा यह निवेदन है कि आज दनिया में जिस प्रकार से साइंस की या ग्रीर चीजों की तरक्की हो रही है उसी प्रकार से हम एक साथ होना चाहें तो वह सम्भव नहीं है क्योंकि हमारे जितने रिसोर्सेज हैं उनके ग्रनसार ही हमको काम करना पडता है । लेकिन अगर आप गौर करेंगे तो ग्रापको पता चलगा कि इंडिपेंडेंस के पहले हमारे यहां डिग्री कोर्स के कल ३० इंस्टीटयशंस थे जो श्रव बढकर १११ हो गये हैं और डिप्लोमा कोर्स के कुल जो कि ग्रब बढ़ कर २१० हो देखिये ग्राप करिये कि कितनी तरक्की इस में हुई है। इतना ही नहीं, सन् **१**१४७ में डिग्री कोर्स के लिये जो भर्तीकी जाती थी उसकी संख्या २६४० के लगभग थी और ५६६२ में जो भर्ती की गई है उसकी संख्या १७ हजार से ऊपर है श्रीर में समझता हं कि इस साल १६६३ में कम से कम २० हजार लडके डिग्री कोर्स में भर्ती हुए हैं। इसी प्रकार से डिप्लोमा कोर्स के लिये देखा जाय तो सन् १६४७ में ३६७० लड़के भर्ती हथे थे और ग्रब इस वक्त लगभग ३० हजार लड़के भर्ती हुए हैं और निकट भविष्य में दो साल के अन्दर डिग्री कोर्स में लगभग २३ हजार श्रीर डिप्लोमा कोर्स में लगभग ५० हजार स्ट्डेंट्स को भर्ती करेंगे। इतना ही नहीं, जैसाकि ग्रभीश्री श्रकवर ग्रली खां ने फरमाया था कि जो स्टूडेंट्स मैट्रिक के नीचे रह जाते हैं उनके बारे में भी विचार करना चाहिये तो उन के लिये भी पालिटेक-निक्स और जुनियर पालिटेकनिक्स खोलने की तजबीज है और उसके अन्तर्गत वे हब लड़के भी जो कि मैटिक के नीचे के हैं निश्चय ही प्रवेश पा सकेंगे और उन में उनको जगह मिल सकेगी।

सभी इस बारे में भी बहस की गई कि
मेरिट्स के आधार पर भर्ती नहीं होती हैं और
उसके आधार पर भर्ती को जानी चाहिये।
मेरा निवेदन है कि मेरिट्स के आधार
पर भरती तो बहुत पहले से बुह
हो गई है और हर एक स्टेट में इसके
लिये पूल सिस्टम जारी हो गया है और इसके
लिये पूल सिस्टम जारी हो गया है और इसके
लिये पूल सिस्टम जारी हो गया है और इसके
लिये सब कालेजों के प्रिसिपिस्स बैठते हैं और
वे सब मिल कर भर्ती करते हैं। वे सेलेक्शन
करते हैं और मेरिट का कोई लड़का भर्ती
होने से रह जाय ऐसी कोई दिक्कत पैदा नहीं
होती है। तो मेरा यह निवेदन हैं कि इस प्रकार
से जितना भी कार्य चल रहा है वह बहुत ही
अच्छा चल रहा है।

ग्रभी श्री यकवर ग्रली खांने कुछ ग्रधि-कारियों के बारे में सराहना की । मैं भी इस सराहना में उनके साथ शरीक होना चाहता हं। मेरा इस बारे में पर्सनल ग्रनुभव है। ग्रभी जब हमने इंजीनियरिंग कालेज खाला तब ग्रगर कबिर साहब ने मदद न की होती ग्रौर वे स्वयं भोपाल न पधारे होते ग्रौर उसके लिये इन्टरेस्ट न दिखाया होता तो निश्चय ही हम उस कालेज को प्रारम्भ नहीं कर सकते थे। इसी तरह से श्री चन्द्र कान्त से जो हमें गाइडेंस मिली ग्रीर जिस प्रकार से उन्होंने दिलचस्पी ली उसकी बजह से हम उस कालेज को चाल कर सके हैं, वर्ना यह सम्भव था कि हम उसे अब तक चालू नहीं रख पाते क्योंकि बहुत सी दिक्कतें इस प्रकार की प्राती हैं जिनमें बहुत कुछ गाइडेंस की जरूरत होती है ।

ग्रव, चूंकि गवनंभेंट के रिसोर्सेज सीमित है—हम टैक्सेणन का भी विरोध करते हैं— इसलिये हमारा यह कत्तंच्य होना चाहिये कि इस काम के लिये हम पब्लिक के रिसोर्सेज को भी ग्रवण्य टैप करें ग्रीर ग्रगर पालिटेक-निक्स, जूनियर पालिटेकनिक्स ग्रीर टैक्नीकल कालेज खोलने के लिये हम प्राइवेटली कुछ भैनेज कर सकें तो सेंट्रल गवनंभेंट ग्रीर स्टेट गवर्नमेंद्स से भी हमको पूरी पूरी सहायता मिल सकती है और हम काम को चला सकते हैं।

धमी चन्द्र कान्त जी ने "टैक्नीकल एज्केशन इन इण्डिया ट हें" के नाम से जे किताब लिखी है वह बहुत ही ग्रन्छी जानकारी इमको देती है कि किस प्रकार की हमारे देश को आवश्यकता है और किस किस प्रकार से देश में इसका कार्य चल रहा है, इन्जीनियसँ की कितनी तादाद है और हमको कितनों की भौर आवश्यकता है, सन् १६४७ में भौर सन् १६५४ में जो कमेटी बनी थी उसने क्या क्या बातें बताई हैं ग्रीर उसके ग्राधार पर क्या ग्रावश्यकता है ग्रीर हमको किस तरह से गवर्नमेंट से सहायता मिल सकती है वगैरह वगैरह सारी बार्ते हमकों उसमें मिलती हैं। तो मेरा निवेदन है कि साइटिफिक रिसर्च एंड करूचरल एफेयर्स मिनिस्टी की तरफ से जो भी काम इस सम्बन्ध में हो रहा है वह बहत ही सराहनीय है।

में एक बात यह भी निवेदन करना चाहता हं कि पहले साधन-सम्पन्न लोगों के लड़के ही भर्ती हो सकते थे लेकिन ग्राज इस प्रकार से ज्यादा कालेजज खोलने की वजह से हम देखते हैं कि बिना साधन सम्पन्न लोगों के लडके भी इन कालेजेज में भर्ती हो सकते हैं श्रीर भर्ती होते हैं--जैसा कि मेरा स्वयं का मन्भव है जो हमारे यहां विदिशा में जो हमने इंजीनियरिंग कालेज खोला है उससे प्राप्त हमा है । इतना ही नहीं, जहां इस प्रकार के कालेजेज खुल जाते हैं वहां लड़कों की तालीम का स्टेंडडं भी कुछ ग्रच्छा ो जाता है। हमने देखा कि हमारे विदिशा में जब हायर सेकेन्डरी में ही हमने कालेज खोल रखा था तो हमारे पास चार दरजे मार्टस के थे और एक साइंस का था लेकिन जैसे ही वहां इंजीनियरिंग कालेज गुरु हुग्रा, वहां श्रब चार साइस के दरजे हो गए हैं, एक सार्ट का हो गया, यानी विलक्क उल्टा हो गया **धी**र लड़कों में और उनके माता पिताओं में भी

## [श्री राम सहाय]

यह भावना पैदा हो गई है क इंजीनियरिंग के कालेज में भर्ती करें इसलिये लड़के भी इस बात की कोशिश करते हैं कि ग्रच्छे डिवीजन से पास हों और उनके माता पिता भी इस ग्रोर खास ध्यान रखते हैं। वैसे तो एजूकेशन के सम्बन्ध में कहीं किसी प्रकार की उन्नति हुई हो या न हुई हो लेकिन यह मैं निश्चयात्मक रूप से कह सकता हूं कि टैक्नीकल एजूकेशन में इस थोड़े से जमाने में जितनी उन्नति हुई है वह बहुत सराहनीय है यद्यपि हमें ग्रभी काफी उन्नति करनी है इसमें सन्देह नहीं है।

सन् १६५४ में घगर हम देखें तो यू॰ एस॰ एस॰ ग्रार॰ में हर दस लाख पर २६० इन्जीनियर थे जब कि हर दस लाख पर यू० एस० ए० में - १३७ थे ग्रौर वेस्ट जर्मनी में ५६ ग्रौर श्रपने भारतवर्ष में केवल ६ थे। लेकिन सन 9 ६ ५४ के बाद से जिस तरह से हमारे इन्स्टीट्यूशन्स खुले हैं और जिस प्रकार से हमारे यहां उनमें वृद्धि हो रही है उससे में निष्चयात्मक रूप से कह सकता हुं कि हम अपनी कमी को बहुत जल्दी ही पूरा कर सकेंगे । ग्रभी इस सिलसिले में हमारे सप्र साहब ने शायद यह फर्माया था कि हमें यु० एस० एस० द्यार० में बहुत ज्यादा विद्यार्थी भेजने चाहियें। मैं उनसे निवेदन करूंगा कि इस वर्ष में, १६६२-६३ में, जहां १६३ विद्यार्थी बाहर गये हैं तो उसमें सब से ज्यादा संख्या-५२ विद्यार्थियों की--उन की है जो कि यु० एस० एस० ग्रार० गए हैं ग्रीर इसके भ्रलावा भीर जगह जो विद्यार्थी गए हैं वह उतनी नहीं है। यू० के० में २८ गए हैं, यू० एस० ए० में भी कुछ विद्यार्थी गए हैं और मैं समझता ह इंजीनियरिंग में कोई भी विषय ऐसा नहीं है जिस विषय के लिये विद्यार्थी बाहर न भेजे गए हों । सिविल इंजीनियरिंग, मेकेनिकल इंजीनियरिंग, इलेक्टिकल

इंजीनियरिंग के साथ साथ हर एक टेक्नालाजी के संबंध में, रेडियो के संबंध में, शिपिंग के संबंध में, टेक्सटाइल के संबंध में, जिस प्रकार से भी हम देखें, उनकी पूरी संख्या को देखें तो २३ प्रकार के सबजेक्ट्स की शिक्षा के लिये हमारे विद्यार्थी बाहर गये हैं और इससे भी पहले बहुत से विद्यार्थी बाहर जा चुके हैं। यह तो मैंने केवल इस वर्ष का ही आप के सामने जिक्र किया है। तो मेरा ऐसा निवेदन है कि हमारे यहां जो इस प्रकार से उन्नति हो रही है वह बहुत ही सराहनीय है।

हम जब देखते हैं कि लड़कों की सहायता के संबंध में क्या विचार हुआ है, तो हम पाते हैं कि उनको बहुत काफी सहायता दी जाती है। स्कालरशिप्स हर एक दरजे के लिये हैं, बी० ई० के बाद भी है, एम० ई० के बाद भी है और पी० एच० डी० के लिये भी है ग्रीर बाहर जाने के लिये तो कई प्रकार की स्कालर-शिप्स रखी हैं। इतना ही नहीं ग्राप देखें कि जो लोग विदेश जाना चाहते हैं उन्हें अनुसंधान करने के लिये भी २,५०० रुपये सहायता दी जाती है जिससे वे ग्रपने खास विषयों में विदेशों में ग्राधनिक तरीकों तथा विकासों का प्रत्यक्ष ग्रध्ययन कर सकें या उच्च स्तर के ग्रन्तर्राष्ट्रीय सम्मेलन में जाने के लिये उनको सहायता दी जाती है या विदेशों में ग्रपने समकक्ष व्यक्तियों के साथ सम्पर्क रखने के लिय सहायता दी जाती है । इतना ही नहीं, भारत में जो अपने निजी अनुसंधान कार्य के परिणामों को स्पष्ट करने के लिये लेक्चर देना चाहें उनको सहायता दी जाती है। कई प्रकार की ऐसी सहायताएं ही नहीं दी जाती हैं बल्कि लोन भी दिए जाते हैं। श्रभी जो स्कीम जारी की गई है उसमें स्टूडेन्ट्स को लोन देने की तजवीज की गई है, वह तजवीज बहुत

श्रच्छी है। लेकिन उसके बारे में मेरा एक निवेदन है ग्रीर वह निवेदन यह है कि जो स्कालरशिप्स दिये जाते हैं वे उनको दिये जाते हैं जिन विद्यार्थियों के ६० परसेन्ट मार्क्स होते हैं । लेकिन जो लोन देने का तरीका रखा है वह भी ६० परसेन्ट तक ही देने का रखा है । मेरा यह नम्म निवेदन है कि जब कोई विद्यार्थी एक दफा इन्स्टीट्यशन में जाय श्रीर वह भी जो इस तरीके पर गवर्नमेंट ने प्रेस्काइब किया हो या यनिवर्सिटी ने किया हो, तो फिर उसमें यह भेद करना कि इस लड़के को कर्जा दें, उस को न दें यह बात कुछ मुनासिव नहीं है ग्रौर इस बारे में मैं ग्रर्ज करूंगा कि उसको ६० परसेन्ट के बजाय ग्रगर हम ४५ परसेन्ट भी कर दें तो बहुत कुछ मसला हल हो सकेगा। कारण यह है कि ग्राजकल जो श्राम तौर पर भर्ती की जाती है मेरिट के हिसाब से, उसमें ५० परसेन्ट से बिलो मार्क के लडके भर्ती नहीं किये जाते, उनकी भर्ती करने की बात उचित भी नहीं होती क्योंकि वे इस तालीम के योग्य ग्रपने को साबित नहीं कर सकते । तो इसलिये मेरा निवेदन है कि हमको इन सब बातों पर ध्यान रखने की ग्रावश्यकता है।

में फिर एक बार कबिर साहब का धन्यवाद ग्रदा करूंगा कि ये बिल जो वे लाए हैं यह केवल दिल्ली के लिये ही नहीं है ग्रीर दिल्ली के उस सीमित दायरे को भी उन्होंने समाप्त कर दिया है ग्रौर वह एक सारे भारतवर्ष का इन्स्टीट्यूशन बन रहा है । मैं उसके लिये उनको बधाई भी देता हूं, मुबारकबाद भी देता हं ।

SHRI KRISHNA CHANDRA (Uttar-Pradesh): Madam Deputy Chairman, I rise to give my full and whole hearted support to the Institutes of Technology (Amendment) Bill which is now under discussion.

[THE VICE-CHAIRMAN (SHRI M. GOVINDA REDDY in the Chair.]

The Institutes of Technology form the best pattern of engineering education in this country and I am glad that the Delhi College of Engineering and Technology is now being added, by this Bill, to the existing Institutes of Technology which are at Kanpur, Madras, Bombay and Khaxagpur. The Delhi students will now have the advantage of getting the best engineering education in the country through this College. As has been mentioned by the hon. Minister—he has been pleased to say the salary of the teachers in these technical institutions has been raised in order to attract the best talent in the country. I would most humbly submit to him that the scale of salary that he has been pleased to indicate, Rs. 400 to Rs. 3000, is, I should say, not very attractive to the best technical talent in the country. The technical people should get a higher scale of salary than the one available to the I.A.S. and other services. It has been an accepted thing all over that technical education should get the best Remuneration. People having technical education should get the best remuneration. Now, a graduate who has passed the highest examination in technical engineering can get a very high pay and attractive salary in any of the industrial concerns. So, the better talents that pass out of our engineering colleges will be attracted towards industry where they will get higher emoluments and these Institutes of Technology will have to content themselves with ordinary talents.

So I would request the hon. Minister that, as is the case in the U.S.S.R., technical people should get the highest scale of salary available to any person in any of the services in the country. "So the scale should be raised.

Another point I would like to place before the hon. Minister is that yesterdayfortunately he is now the

[Shri Krishna Chandra.]

Minister of Education and in charge of technical education as well-while giving replies to my supplementary questions he stated that out of 7,666 persons who applied for admission to the Delhi University on the arts side, 6,182 were admitted and 1,484 were left out. Similarly, for science faculties 2,048 students applied and out of that only 1523 were given admission. So I ask. what steps the Government are going to take or is contemplating in regard to these people who have been left out, who have been refused admission. I do not for a moment mean to say that inferior stuff should be admitted into the universities., If the hon. Minister wants to raise the standard of education in the universities, he will have to put up some distinctions as criteria by which they can get admission into the universities but at the same time as Government they have to consider what they are going to do in relation to so many persons who have passed the Higher Secondary examination but who have been refused admission into the university. In other countries they are taken into the industry or into technical education. Now in our country industries do not take any raw people who come out from the schools. They are afraid of them. They think these students, if taken in as tradesmen, will create mischief among the labour and so they avoid taking educated persons in the industries. So, something has got to be done for these people. Either you start more technical institutions so that all these people may be absorbed and they might after passing out from them get into some useful employment somewhere in industry.

My next point is this. From the debate that has gone on on this Bill it has been clear, I think, to the hon. Minister, that hon. Members of Parliament have not much knowledge of the kind of engineering institutions and the number of engineering institutions that exist throughout the country at present. The previous speaker,

the hon. Mr. Ram Sahai referred to the book 'Facilities for Technical Training in India' by Mr. Chandra-kant. I am glad that he brought out this book. It gives information not only to Members of Parliament but to all others who want to know about the facilities that are available for technical education in the country. In this connection I would submit to the hon. Minister that this book has become out of date now. Many institutions have come up in the country after this book was published and so a new edition has got to be brought out or a supplement has got to be brought out so as to include all the other institutions that have come into existence after the publication of this book. That will give us an idea of the engineering colleges, where they are situated, how admissions are made to them, etc. I drew the attention of the Department repeatedly that they should bring out some supplement in order to give an idea of the other institutions that have come up and every time I was given an assurance that this supplement will be brought out but it has not so far been done. That is why I am bringing it to the notice of the hon. Minister that he should see that this supplement is now brought out.

Now, an enquiry I would like to make of the hon. Minister is that up till now in the Kharagpur Institute there have been admissions to the five-year course and also to the four-year course. I want to know from the hon. Minister whether this pattern i\* going to be retained, this pattern of

having both the five-yearcourse and the fouryear course, or whether they are going to give it up and have a uniform pattern of four-year course in all these Institutes.

The hon. Mr. Dahyabhai Patel said that by giving a distinction and higher glamour to these five Technological Institutes in the country the Govern ment is creating a class of institu just like the Scheduled Castes. He is very much mistaken. We have to develop institutions in the country within our own resources. We cannot make every institution for technical education up to the standard of that Technological Institutes. So we must have some pattern and therefore the Government of India has created a certain pattern. Up till now there were only four Institutes and now one has been added. Let us hope that in the near future more and more will be added and we will have a number of technological institutes available to the students from all over the country who want to get the highest technical education.

With these words, Sir, I support this Bill.

شری عبدالغلی: وائس چیرمین صاحب - میں اس استیم پر کچهه زیاده عرض نہیں کروں کا - صرف دو تین گذارشات کرنا چاعتا هوں - پہلی تو یہ هے که اس میں جو قبلوما هولکرس هیں ان کے لئے منسلو صاحب کو لچهه نه کچیه پرسلتیم رکھنا چاهیئے تاکہ ان کو داخله مل سکے آور وہ بھی اس سے فائدہ اٹیا

دوسری بات یه عرفی کرنی ہے که آنہوں نے فرمایا که میں نے اِس بِل یو کچهه نہیں کہا – نیکن میں یہ عرف کرنا چاہتا ہوں کہ سپرو صاحب
کی تقریر کے بعد منجهے یہ ضرورت
محسوس نہیں ہوئی کہ میں زیادہ
اس بل کے متعلق کہوں - رام سہائے
جی نے جو کنچہہ فرمایا اگر میں اس
کا مقابلہ کروں تو جو اکبر نے
کہا ہے -

## مجلس ان کی ساقی ان کا آنکهیں ایدی باقی ان کا

ولا تو الكريز كا زمانه تها اس والت ھمارے بنچوں کی ترقی سے انہیں کوئی مطلب نهیں تھا که وہ کوئی انجیلهر بلے یا کوئی کسی چھڑ میں ماہر ہو جائے لهکور آج ایموجلسی کے زمانہ مهی جب که همهن سب سے زیادہ ضرورت ایسے لوگوں کی ہے جو ڈیکلیکل الثن میں سب سے زیادہ شاندار ہوں اور شائلنگ هوں - مهن نے انسٹی تهوشن بوهانے پر مبارکهاد دی تھی لیکن یہ کها تها که نهرو سرکار کو اس چهز پر جتلا رویهه خرچ کرنا چاهیئے تها جتلی متعلت اس چھو پر کرنی چاھیئے تھی جتلی ترقی اس جیز کی کرنی جاهیئے تھی وہ نہیں ھو رھی ہے یہ میں نے اس لئے کہا۔ تھا کھونکہ مھن متحسوس کرتا ھوں آبے جب که چاروں طرف همارے جو اپلے تھے وہ دشس ہو گئے اور جو دهمن تهے ولا تو ههن هي -ایسے وقت مهن جب که همهن باوقر پر پریشانی کا سامنا کرنا یو رها هے تو ہمارے ملک کی ہو اندستريل طور پر ترقي هو اور هماري

اور ایک کروز تیس لاکهه کی اجازت دے دی اور کہا بہاں تک جاتا ہے كه اس س كچهه بلتا نهين - تو جهان فاون ايكسمهديم غرج كونا هوتا ه وهاں کرتے ہیں - اس لئے یہاں بھی اگر همیں اپنے استوةنشس کے لئے کوئی سامان منگوانا ہوے کوئی استاد منگوانے پویں اور ان استادوں کو روپھے دیا ہے۔ بر وه زیاده سے زیادہ دینا چاهیئے اور اس لئے دینا چلھیئے کہ آپ کو یاد هوگا که باپونے کراچی میں منستووں کے لگے پائنچسو روپھے مقرر کھا تھا اور انجهدیر اور تهکلیشین کے لئے كولى ليست نهيس وكهي تهي أور بهت زیاده دیلے کی اجازت دی تھی۔ اس لکے ان کو بے شک زیادہ سے زیادہ دیجئے - منستروں نے اپنی تنخواہ زیاده کولی پانچسو کی جگهه هزارون روپه، خارج هوتا هے اس لئے يہاں بھی كنچهه زيادة خرچ كرنا پوے تو كوئى حرج فی بات نہیں ہے - کیوں که گاندھی جی نے پہلے ھی اجازت دے ەسى تېسى ـ

میں بہر حال مہر سے مہارک یاد ديتا هون اوريه سنجهها هون که يه قدم اچها هے اور خدا کرے یہ قدم اور آئے ہوتے ۔

† श्री श्रब्दुल गनी : वाइस चेयरमैन साहब, मैं इस स्टेज पर कुछ ज्यादा अर्ज नहीं करूंगा। सिर्फ दो तीन गुजारिशात करना चाहता हूं। पहली तो यह है कि इसमें जो

[شرى عبدالغلي] فوجوں کو سامان کے لئے جو سہولیت هو اور همارے بارقر پر جو سیاهی ههن ان کو محددوظ رکھنے کے لئے هر طوح کی مشینری اور بهترین مشیدری مہیا ھو تو ان سب چیزوں کے لئے همیں بوے بوے تیکلیکل اسکولوں کی ضرورت هے - میں سنجہتا عوں که اس وقت هدن منستو صاحب کے هانهون کو مضبوط کونا چاهی تاکه وی ایسے انستی تیوشنوں کو برهائیں اور جو هوشهار لوکے هوں ولا اس مين هاته، بتائيس ايني قابليت كا فائدة المائيس أور زيادة سے زيادة ديم كو سرو کریں - اس لئے ان کو موقعة ملے - میں نے یہ اس لئے کہا کہ

بھائی اکبر علی خاں نے بہت ھی کامیابی کے ساتھہ آئے وچار رکھتے هولے کنچهه بهالیوں کی تعویف کی مهن بهی کرتا هوں لیکن میں ان سے کہا چاہتا ہوں که جہاں تک ولا كهتے هيں كه فارن ايكسچيليم كى دقت أتى هـ والس چيرمين صاحب مين سنجهتا هي كه جہاں کرنا ہوتا ہے وہاں وہ کر می لهتے هيں - آپ بهي جانتے هيں كه کل عی کی بات ہے کہ نیپکو انڈستری كا قصع چلا - پنچاس لاكه، مين جو چیز ملتی تھی سرکار نے نہیں لی

زیاده روپهه دیا جائے۔

<sup>†[ ]</sup> Hindi transliteration.

डिप्लोमा-होल्डर्स हैं उनके लिये मिनिस्टिर साहब को कुछ न कुछ परसेंटेज रखना चाहिये ताकि उनको दाखिला मिल सके और वह भी इससे फायदा उठा सकें।

दूसरी बात यह धर्ज करनी है कि उन्होंने फरमाया कि मैंने इस बिल पर कुछ नहीं कहा। लेकिन मैं यह अर्ज करना चहता हूं कि सप्र साहब की तकरीर के बाद मुझे यह जरूरत महसूस नहीं हुई कि मैं ज्यादा इस बिल के मुतालिक कहूं। राम सहाय जी ने जो कुछ फरमाया ग्रगर मैं उसका मुकाबिला करूं तो जो श्रकबर ने कहा है।

मर्जीलस उनकी, साकी उनका ग्रांखें ग्रपनी, बाकी उनका

वह तो ग्रंग्रेज का जमाना था उस वक्त हमारे बच्चों की तरक्की से इन्हें कोई मतलव नहीं था कि वह कोई इन्जीनियर बनें या कोई किसी चीज में माहिर हो जायें। लेकिन म्राज एमरजेंसी के जमाने में जब कि हमें सबसे ज्यादा जरूरत ऐसे लोगों की है जो टैक्नीकल लाइन में सबसे ज्यादा शानदार हों और शाइनिंग हों। मैंने इन्स्टीट्यशन बढ़ाने पर मुवारकबाद दी थी लेकिन यह कहा था कि नेहरू सरकार को इस चीज पर जितना रुपया खर्च करना चाहिये था जितनी मेहनत इस चीज पर करनी चाहिये थी, जितनी तरक्की इ स चीज की करनी चाहिये थी वह नहीं हो रही है। यह मैंने इसलिये कहा था क्योंकि मैं यह महसूस करता हूं झाज जब कि चारों तरफ हमारे जो अपने ये वह दुश्मन हो गये ब्रीर जो दुश्मन थे वहतो हैं ही। ऐसे वक्त में जब कि हमें बोर्डर परे परेशानी का सामना करना पड़ रहा है तो हमारे मुल्क की हर तरह से इंडस्ट्रियल तौर पर तरक्की हो और हमारी फीजों को सामान के लिये हर सहलियत हो और हमारे बार्डर पर जो

सिपाही हैं उनको महफूज रखने के लिये हर तरह की मशीनरी भीर बेहतरीन मशीनरी भीर बेहतरीन मशीनरी मृहस्या हो तो इन सब चीजों के लिये हमें बड़े-बड़े टैक्नीकल स्कूलों की जरूरत है। मैं समझता हूं कि इस वक्त हमें मिनिस्टर साहब के हाथों को मजबूत करना चाहिये ताकि वह ऐसे इंस्टीट्यू अनों को बढ़ायें भीर जो होणियार लड़के हैं वह उसमें हाथ बटायें, श्रपनी काविलयत का फायदा उठायें श्रीर ज्यादा से ज्यादा देश को सर्व करें। इसलिये उनको मौका मिलें। मैंने यह इसलिये कहा कि ज्यादा रूपया दिया जाये।

ग्रकबर ग्रली खांनेबहुत भाई ही कामयाबी के साथ ग्रपने विचार रखते हुए कुछ भाईयों की तारीफ की । मैं भी करता हं। लेकिन मैं उनसे कहना चाहता हूं कि जहां तक वह कहते हैं कि फौरेन एक्सचेंज की दिक्कत ग्राती है, वाइस चेयरमैन साहब, मैं समझता हू कि जहां करना होता है वहां वह कर ही लेते हैं आप भी जानते हैं कि कल ही की बात है कि नेप्को इंडस्ट्रीय का किस्सा चला। पचास लाख में जो चीज मिलती थी सरकार ने नहीं ली और एक करोड़, तीस लाख की इजाजत देदी भीर कहा यहां तक जाता है कि इस से कुछ बनतानहीं। तो जहां फौरेन एक्सचेन्ज खर्च करना होता है, वहां करते हैं। इसिनये जहां भी श्रगर हमें अपने स्ट्डेंट्स के लिये कोई सामान मंगवाना पड़े, तो कोई उस्ताद मंगवाने पड़ें ग्रीर इन उस्तादों को रूपया देना पड़े तो वह ज्यादा से ज्यादा देना चाहिये और इसलिये देना चाहिये कि भ्राप को याद होगा कि बापू ने कराची में मिनिस्टरों के लिये पांच सी रूपया मुकरेंर किया वा भौर इंजीनियर भौर टैक्नीशियन के लिये कोई लिमिट नहीं रखी थी और बहुत ज्यादा देने की इजाजत दी थी। इसिलिये उनको वेशक ज्यादा से ज्यादा दीजिये। मिनिस्टरों ने अपनी तनस्वाह ज्यादा करली,

## [श्री भ्रब्दुल गनी]

पांच सौ की जगह हजारों रुपया खर्च होता है इसलिये यहां भी कुछ ज्यादा खर्च करना पड़ें तो कोई हजंं की बात नहीं हैं। क्योंकि गांघी जी ने पहले ही इजाजत देदी थी।

मैं बहुरहाल फिर से मुबारकबाद देता हूं भौर यह समझता हूं कि यह कदम भ्रच्छा है भौर खुदा करे यह कदम भ्रौर श्रागे बढ़ें।]

SHRI HUMAYUN KABIR: Mr. Vice-Chairman, I had not thought that I would have to intervene again, but a few points have been raised to which I think, I should give brief replies. Shri Patel was quite correct in saying that we are not having public contributions on as large a scale as before, but even today! there are generous people and the open-door policy is still continuing by which institutions are being established.

I have dealt with the question of migration of scientists and I have nothing much to add. We all desire that our best scientists should return to the country, but we have to give them time. By and large, I think, it is true to say that we are not losing many scientists abroad to foreign countries yet.

He also referred to catse distinction among institutions, but my hon. friend, Shri Krishna Chandra, has given a very effective reply to that. So, I will not deal with that further.

One point which Shri Patel raised is very serious and that is about the question of hostel accommodation. I agree that a great deal has to be done in this direction. We have also taken certain measures for improving hostel facilities. We give interest-free loans for the construction of hostels. Till now about Rs. 7 crores have been given as interest-free loans and by the end of the Third Plan the amount will be about Rs. 13 crores. Provision has been made for more than 40,000 students jn hostgls. So far as the Insti-

tute of Technology are concerned, they are almost 100 per cent residential. In the case of others also, we provide for hostel facilities up to 'fifty per cent. As I said, these loans are being given to all these institutions. They have not yet taken full advantage of it. We hope we will be able to complete this programme and meet the deficiency to a large extent.

Then Shri Patel referred to the need for specialisation and for offering facilities in areas where there are special needs. This is always kept in view. That is why we have the School of Mines at Dhanbad. We have also appointed a special Committee to go into the question of location of post-graduate courses in petroleum technology and this Committee is surveying. One of the places suggested is Baroda, but, of course, the final location will depend on the recommendations of this Committee.

Then, he referred to the question of selecting the best students. He was not happy that there should be a competitive examination, but he himself said there is no other alternative. If it is not by a competitive examination, what other method can we follow? If we follow the method of interview, I am sure that hon. Members of the House will realise that the personal factors may become so important that sometimes the ends of justice may be defeated. In this imperfect world we have to do with the best available instrument and so far no one has been able to suggest a better method than competitive examinations

He finally referred to the need for a revision of targets. We have been revising targets all the time. In the Second Plan, the target had been originally placed at something like 8,000 or 9,000 admissions. At the end o'f the Second Plan. We actually achieved 14,000. In the Third Plan the target was placed at about 20,000. We have probably this year, if not

achieved near-achieved it and certainly we shall go beyond that figure next year and before the end of the Third Plan we will have surpassed the target by at least 2,000 or 3,000. Therefore, we are always revising the targets and we shall keep this in mind. we do not also want to proceed beyond what the country can absorb.

Mr. friend, Shri Akbar Ali Khan, wanted no reservations at all. But I think considering . . .

SHRI AKBAR ALI KHAN: Not in the case of the Indian Institutes of Technology. In the case of the local colleges it can be done.

SHRI HUMAYUN KABIR: There also, under the Constitution, the Scheduled Castes and Scheduled Tribes are entitled to certain reservations and without changing the Constitution this reservation cannot be denied. Apart from that I think there is a case for -making certain reservations for Scheduled Castes and Scheduled Tribes because they have been denied opportunities for a long period in history. Today, when we reserve seats for them it is not a matter of grace. It is not that we are doing any charity. We have always to look upon it as a kind of expiation for our past sins, a redress of certain social injustices which have been inflicted upon them. Today society most make good that loss and it will pay society very richly in the end. Before 1947, the number of Scheduled Castes students with post-graduate degrees could be counted on one's fingers. Today they are running into tens of thousands. Today we are having in scientific laboratories Scheduded Caste students and Scheduled Tribs students carrying on research. Members of this House will remember with pleasure that in the Indian Foreign Service examination this year, some Scheduled Tribe candidates were right near the top. All this proves that given the opportunity they can come up, but for a number of additional facilities years and

opportunities have to be given to them.

SHRI AKBAR ALI KHAN: I have full sympathy for them. But still I do think that merit would be sacrificed in the case of such institutes which are for research and higher studies, if reservation is made. I do admit that they should get reservation In the local engineering college, polytechnics and other things.

THE VICE-CHAIRMAN (SHRI M. GOVINDA REDDY): There is a constitutional provision.

SHRI HUMAYUN KABIR: I have nothing further to add to what I have said on this point, if in spite of that, my friend still holds his view. Some facilities have to be given to the students even in these institutes and they have justified it. Those who have *come* there have, after a year or two, competed on equal terms with students who came in open competition.

My hon. friend referred also to the question of improving the quality of teachers. I am entirely at one with him. My only hope is that we have sufficient idealism among the students of today to take to the comparatively less paid profession of teaching. My friend, Shri Krishna Chandra, suggested that they should be paid more than in any other service. I wish it were possible, but I think there are difficulties. In any case, I cannot visualise for many years to come a situation where a teacher of technology will be paid more than a captain of industry. He was not satisfied with a starting salary of Rs. 400. In certain cases, not in all cases, the salary goes up to Rs. 3,000. I think in our circumstances we cannot do better than that. Even Rs. 400 to Rs. 1,800 would be quite an attractive scale if we could offer a uniform, continuous scale like that. But there are difficulties even in that regard.

[Shri Humayun Kabir.] Then, my hon. friend raised the question of employment opportunities.

'This was a point which was raised also by my hon, friend, Shri Krishna Chandra, The point was, what happens to those students who do not get admission into the college or into technological institutions? The answer is that you cannot establish colleges only because some students have passed the higher school certificate examination. My friend, Shri Krishna Chandra, said .that he was prepared to raise the standard of admission. Today we have in Delhi less than 40 per cent, as the marks for admission to arts courses. Even then some 1400 students could not be accommodated. We had about 45 per cent, for admission to science courses. Even then about 1300 or 1400 students could not be accommodated. If he is going to raiss the standards, I am entirely at one with him, but then the number of refusals will be much larger. The solution to this is on other lines, and I think my hon, friend, Shri Akbar Ali Khan, indicated a right approach when he said that this has to be done at the high school level and perhaps even before. The certificate courses run by the Labour Ministry certainly offer one answer. The junior technical schools, which we have started, are another answer. For the last

. seven or eight months I, have been trying to pursue this matter. I wrote to the Chief Ministers of all the States suggesting that if we can devise measures by which about 40 to 45 per cent, of students at the secondary level could be diverted to junior technical schools or other industrial or trade schools, the pressure oh colleges and technological institutions would be very greatly reduced. Actually by allowing them to go to the college, we do not solve any problem because they do not become more employable after they have taken a B.A. or B.Sc. degree. In fact, they become less employable. At the age of 17 or 18 before they have taken a degree, they can undertake various kinds of jobs. If they have taken a degree, either degree or a

second degree, their expectations are expanded beyond what the country can afford, and then sometimes they become almost unemployable. My hon. friend, Shri Krishna Chandra, said that the industrialists are not willing to take matriculates because they think that they will create disaffection among the other labour. If that is true of matriculates, what will be the position if they all go after having taken the first degree and have to take the kind of jobs which they are doing today without taking a degree? One thing tfcis country must face. As there is universal literacy, every kind of work will have to be done by literate people. Today there is a kind of feeling in the minds of many that because some person is literate, he should therefore not take certain kinds of jobs. This feeling is also standing in the way of solving this problem. But I feel, as I said a moment ago, that the answer is to have a far laHgor proportion of adolescents to go into trade schools, into junior technical schools, and I hope that it may be possible to expand these schools on a sufficiently large scale.

My friend, Shri Akbar Ali Khan, referred to the question of. salary guarantee. We have given a guarantee for five years. That should be enough. After all, within five years there will be various kinds of measures. There are these Finance Commissions which meet every five years and which make allocations between the Centre and the States after taking into consideration the Whole financial picture. We agreed to pay for five years so that the Finance Commission would come in the meantime and make necessary allocations. But I regret to say that certain State Governments am<i certain private organisations have been rather timid in the matter. They have not accepted our offer and that is why in some private institutions the conditions are even today not fully satisfactory.

My friend finally 'referred to the need of an Indian Institute of Technology for Andhra Pradesh. I .hope a day will come when there will be such Institutes in every State. But obviously it will take some time. It took us many, many years before we had the first Institute at Kharag-pur. Between Kharagpur and Bombay there were eight years. In 1950, the Kharagpur Institute was established; the Bombay Institute was established in 1958. After that we had Madras and Kanpur. It was in that order. The Bombay Institute came into existence in 1958. In 1963, we are having the fifth Institute. We have already agreed to develop the Waran-gal Institute with the assistance of the United Nations Fund, and maybe after another five years or so, I cannot give any time limit for it, but the intention is that, gradually these Institutes should develop. As there is requirement for technical personnel of high quality throughout the country, the number of .higher institutes will increase. But I would only submit to hon. Members that we should not take a State or provincial approach in this matter. In the case of an all-India Institute, the approach must be an all-India one. They are all-India Institutes in the true sense of the term and every Institute is open to students from every part of the country. The competitive examination is held in centres throughout the country.

I am very grateful to my hon. friend, Shri Ram Sahai, who answered some of the points and very clearly stated some of the programmes of this Ministry. He 'did not really raise any objection or criticism so that I have no point to answer him. But I accept his suggestion that we should try to utilise these limited resources to the best possible extent and expand our junior technical schools on a larger scale. He suggested that the limit for scholarship should be lowered to 55 per cent. Even at 60 per cent, the number of applicants is so great that we cannot cope with them. If we lower it, the difficulty will be far greater.

My hon. friend, Shri Krishna Chandra, referred to he need for greater dissemination of knowledge about technical institutions. Sir, I am glad to tell him that a new book has come out in January 1963. This is on Technical Education in India, again by Mr. Chandrakant. Very recently, about a month ago, the Eastern Regional Committee of our All-India Council for Technical Education have brought out another publication which gives not only a very full account of all institutions in the eastern region of India but also a summary account of institutions throughout the country. We shall certainly keep his advice in mind that these publications have to be brought up-to-date from time to time.

He asked whether the second year admissions will continue at Kharagpur and Bombay. This is a temporary measure. Ultimately, all the institutions will have five-year integrated courses, and there will be admissions only in the first year. But these Institutes have a certain amount of autonomy and they can decide their own coursa of development and rate of progress.

My hon. friend, Shri Ghani\* referred to the need of providing some facilities to diplomaholders. We are trying to do that, and recently a postgraduate diploma has been instituted, a diploma after the diploma at the national level. We are also trying to see that the diploma-holders get facilities for admission to degree institutions. Some universities have agreed in principle and I hope that this will become more general.

Finally, he referred to the question of foreign exchange. We have taken that up as I said before. We require about Rs. 2 crores every year for meeting the requirements of all the technical institutions in the country, and I have every hope that before long this amount will be guaranteed so that there will be no difficulty in providing the equipment necessary for these institutions.

[Shri Humayun Kabir.]

Finally, I agree with hdm and other hon. Members who said that we muse never give up the idea of expansion. I said earlier that our facilities should always be a little in advance of wihat the country requires at any one •moment, but we should not go too far ahead because that would create pre blems again.

In conclusion I once again thank the House for the very generous support that all sections of the House have given to this measure.

SHRI AKBAR ALI KHAN: What about the emergency measure?

SHRI HUMAYUN KABIR: Regarding the emergency measure, my hon, friend wag mistaken. We have not reduced the duration of the course. In spite of great pressure, we refused to reduce the course. All that we did was that in the case of those who were in the two final years, we cut out their vacations and in this way we advanced the completion of their training by three or four months. If ten per cent, of the students did not attend, I am very sorry but they will have to suffer for it. The 90 per cent, cannot suffer because of the lapse of 10 per cent

SHRI AKBAR ALI KHAN: Ten per cent, attended?

VICE-CHAIRMAN GOVINDA REDDY): The question is:

"That the Bill be passed."

The motion was adopted.

#### THE DRUGS AND MAGIC REME-DIES (OBJECTIONABLE ADVER-TISEMENTS) AMENDMENT BILL, 1963

THE DEPUTY MINISTER IN THE MINISTRY OF HEALTH (DR. D. S. RAJU): Mr. Vice-Chairman, I move:

"That the Bill to amend the Drugs and Remedies (Objectionable Magic Advertisements) Act, 1954, be taken into consideration."

Sir, this is actually an amendment to the Act of 1954, which has been in force from the 1st of April, 1955. So, actually this Act has been in force and implemented for the last few years since 1955. All over the country, this Act has been implemented and a few people, who have contravened the provisions of the Act, have been prosecuted and fines have been recovered from them. For example, in the State of Delhi itself, about 22 cases have been prosecuted and a fine of Rs. 16,000 has been collected. I think that in the year 1959, the Hamdard Dawa-khana and a few others filed a writ petition saying that this Act of 1955 contravened the constitutionality . . .

# † [श्री श्रब्दल मनी (पंजाब) कोरम

THE VICE-CHAIRMAN GOVINDA REDDY): (After a count) There is quorum, Mr. Ghani.

SHRI ABDUL GHANI: Thank you.

DR. D. S. RAJU: In the year 1959, the Hamdard Dawakhana and a few others filed a writ petition saying that this Act contravened the provisions of the Constitution, that is, articles 19(1) (a) and 19(1) (f) and (g). The Supreme Court went into this question and after discussing this question, they held that the general provisions of this Act were valid. But they came down very heavily upon two sections, section 3(d) and section 8. They said that these two sections were invalid and that they should be deleted. In view of the Supreme Court's decision, this amendment 'has been brought forward.